

MANUFACTURERS' RECORD

A WEEKLY REVIEW OF THE IRON, STEEL, METAL & HARDWARE TRADES.

AND A MANUFACTURING AND TEXTILE PAPER, DEVOTED TO THE UPBUILDING OF SOUTHERN MANUFACTURES AND THE DEVELOPMENT OF THE MATERIAL RESOURCES OF THE SOUTH.

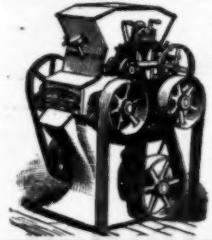
VOL. 8. No. 5. WEEKLY.

BALTIMORE, SEPTEMBER 12, 1885.

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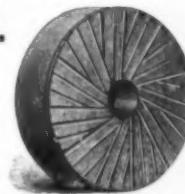
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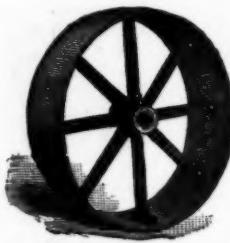
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The cost of this Mill is much less than any other machine of sufficient capacity to do the same amount of work.

It requires less power to run it, (10-horse being sufficient.)

The wear and tear of the Mill is much less than any other Quartz Mill doing the same amount of work, and the quality of the work done by it is greatly superior to work done in any other Quartz Mill now in use.

It crushes to a uniform fineness and makes no slimes, so that no sizing is required for concentration.

The Mill is equally well adapted to crushing and pulverizing of all classes of ores, either for amalgamation or concentration, and will pulverize and amalgamate from one-half to one ton per hour, according to character of ore and fineness of screens.

With ordinary care there is no loss of mercury by flouring, and consequent loss of gold, as in most other Mills where mercury is used in the Mill.

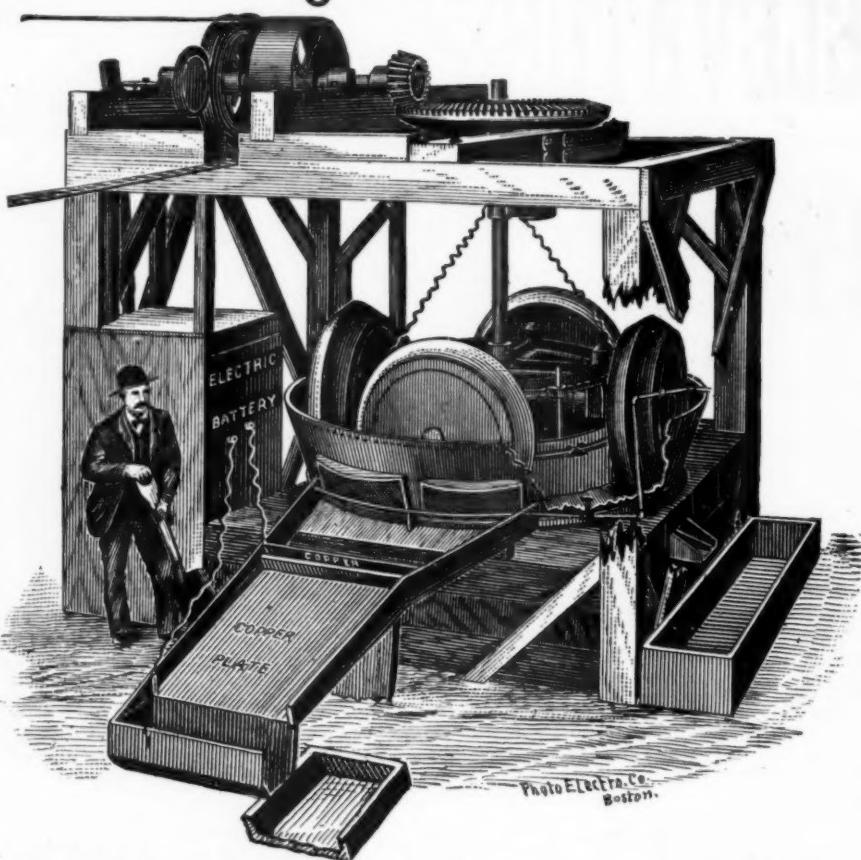
Amalgamation is carried on in the same operation with the crushing. The mercury is placed in the Mill in quantities varying from 10 to 40 pounds.

The application of electricity to the Mill for the purpose of cleaning and keeping the mercury alive has been to a very large extent superseded by the invention and introduction of the Mercury Trap in the Mill for the purpose of drawing off the mercury when charged with gold or on the slightest indication of flouring. By this ingenious device the mercury can be changed as often as desired without loss of time in either crushing or amalgamating. By opening this Trap the amalgam is discharged from the Mill in three minutes, and clean mercury introduced in its place.

To those familiar with running a Gold Mill this latter advantage will be greatly appreciated; in fact, it gives the mill-man full control of his work.

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The past year we have sold many Mills, which may be found in Michigan, North Carolina, Dakota, Montana, Idaho, Colorado, California, Mexico, Nova Scotia, etc. All those in operation are giving the most perfect satisfaction, as testimony will prove, and we will take pleasure in referring to any one of these on application.



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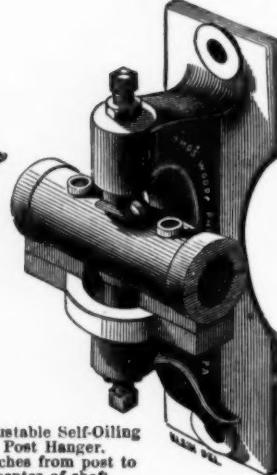
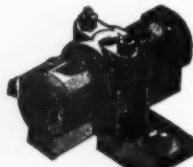
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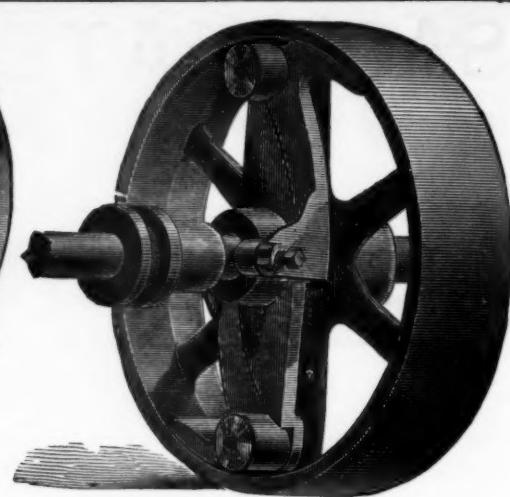
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16, 18 and 20 yards circumference,
WITH IMPROVED HECKS.

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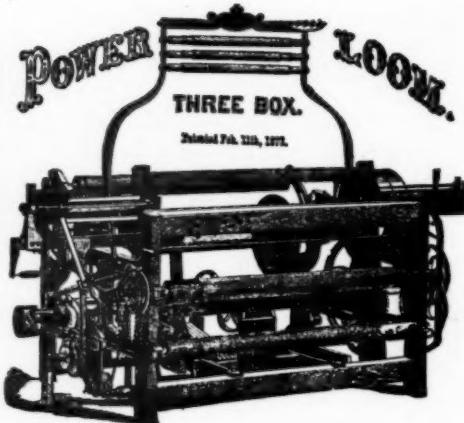
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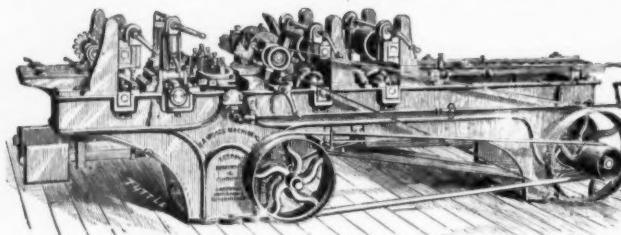
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Suitable for any kind of driving, they serve equally well as driver or driven.



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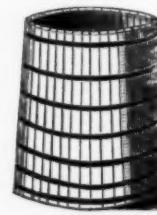
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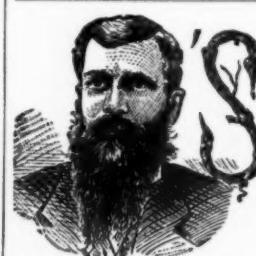
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Wool, Worsted and Flax Machinery and English Card Clothing. Hardened and Tempered Steel Wire a Specialty.
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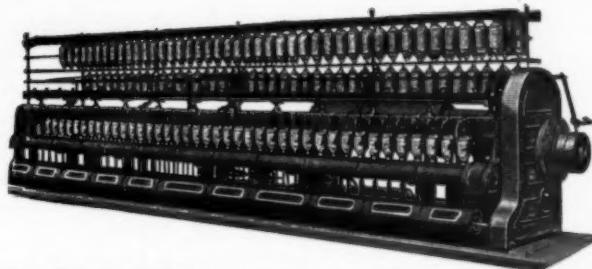
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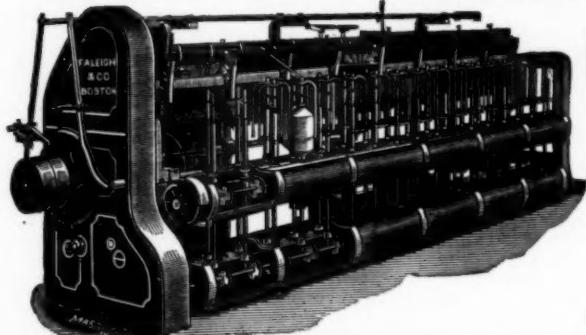
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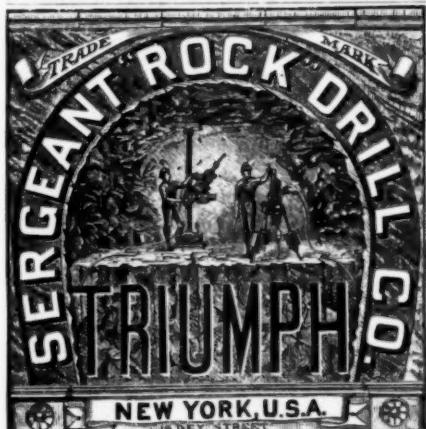
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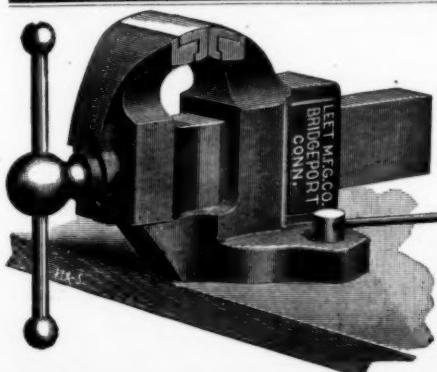
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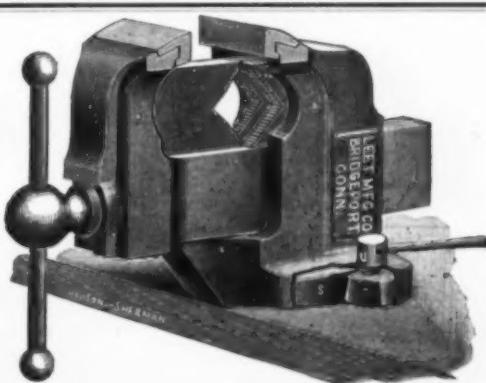


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WITH SWIVEL BOTTOM.

These Vises can be used either as a Sliding Jaw or a common Screw Vise by simply turning in or out the small screw in backside of the head or base. It will hold work with a more powerful grip than any other Vise. The workmanship is perfect; all the working parts are made of steel and interchangeable. Sold by all Hardware Dealers. Send for Descriptive Circular and Price List to

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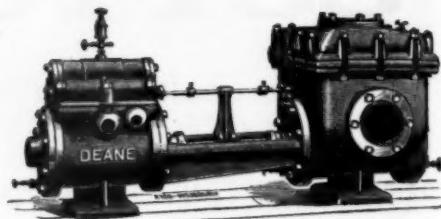
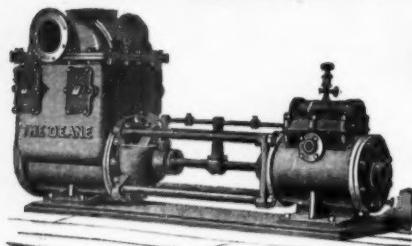
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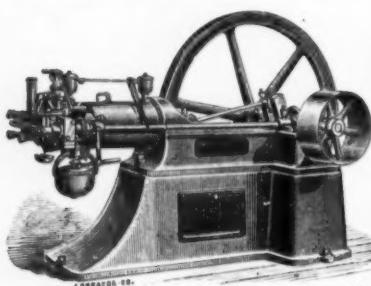


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NITRO-GLYCERINE IN ANY FORM.

It Does Not Freeze. Can be shipped by express, railway or steamship lines. Neither of the two ingredients are explosive until combined, and when combined are safer than Dynamite. This explosive approximates Nitro-Glycerine in strength. Send for circulars to

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Over 14,000 in Use.

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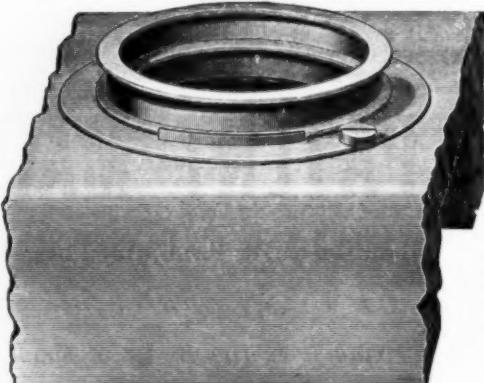
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TELEGRAPH ADDRESS AND RAILROAD STATION,
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	Number of Rings sold.	Number of Rings sold for repairs.
1869	6,005	---
1870	20,258	---
1871	38,648	---
1872	94,264	12
1873	117,301	---
1874	168,382	500
1875	233,924	963
1876	185,319	947
1877	270,811	946
1878	215,214	3,309
1879	316,918	8,007
1880	507,360	11,264
1881	659,730	8,974
1882	636,715	22,515
1883	416,590	21,689
1884	319,869	25,105
1885, 5 mos.	112,522	12,118
Total number sold in 16 years	4,390,460	116,349
Total number in use	4,273,911	

The great durability of our Rings is shown by the fact that we have more rings in use over twelve years old than all we have sold for repairs.

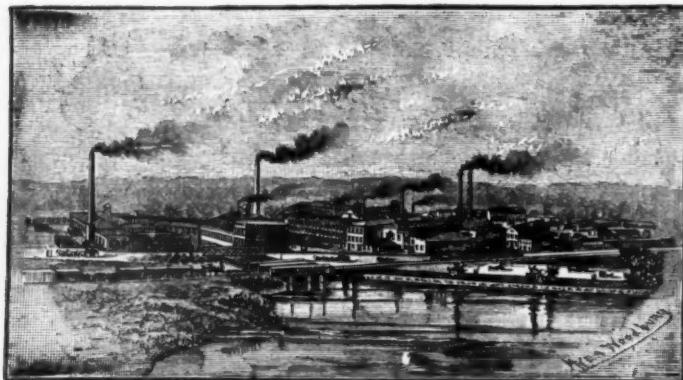
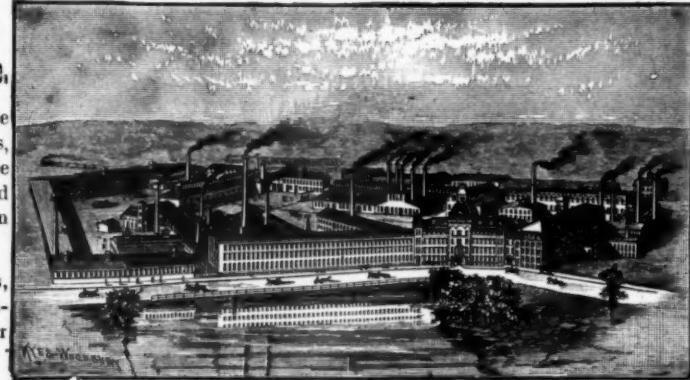
This statement shows unmistakably that a mill once supplied with our rings need think but little of the cost of repairs. As the number sold for repairs is an average of about twenty per cent. of the number sold the tenth year before, the average life of our rings will be at least twelve years.

Do not make the mistake of ordering new frames without specifying Double and Adjustable Rings. While they cost more to begin with, they are much the cheapest in the end, on account of their uniform excellent quality and unparalleled durability.

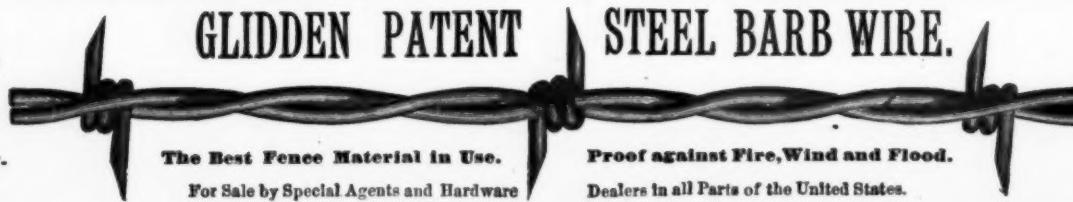
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BALTIMORE. SEPTEMBER 12, 1885.

CORRESPONDENCE relating to the manufacturing, mining, lumbering and all other material interests of the Southern States is solicited. Reaching so many capitalists in all parts of the United States seeking profitable investment in the South, the MANUFACTURERS' RECORD offers an excellent chance for the people in that section to place the advantages of each locality before those likely to be interested. We will take great pleasure at all times in telling what has already been accomplished in the South, and showing up the opportunities of doing still more.

AN International Exhibition of Navigation, Traveling, Commerce and Manufactures, will be held in Liverpool in 1886, with the Prince of Wales as president. It will be devoted to exhibits of everything that pertains to these subjects; included under manufactures being minerals of all kinds and their uses; cutlery, tools, general hardware, textile goods, manufactures of wood, etc. A very handsome 16-page circular, giving some of the preliminary arrangements, has just been issued. It can be obtained from Mr. Dennis Donohoe, British Consul at Baltimore.

THE cost of making iron in Alabama is now settled. There is no use figuring on the matter any longer. An Indianapolis editor has tackled the subject, and he presents his figures to show that iron can be made in Alabama at \$6.70 a ton, to which, he generously admits, "should be added the salaries of officers and interest on investment." Next!

If you are not already a subscriber to the BALTIMORE MANUFACTURERS' RECORD, send us \$3 and you will receive it regularly for one year, or six months for \$1.50.

The Growth of Cotton Manufacturing in the South.

That the South is destined to be the center of the cotton manufacturing interests of this country admits of no questioning. Its natural advantages for this business are far superior to those to be found in any other section. The temporary depression in this industry is sure to pass away with the return of prosperity to the country, and this good time seems to be rapidly approaching. During the great activity that preceded the depression that is now passing away, many cotton mills were erected in the South, some of them costing entirely too much in proportion to the number of their spindles, and some without sufficient commercial capital to have carried them through successfully even if business had continued prosperous. It was only natural that such mills should be seriously affected by the decline in values and the stagnation in trade that commenced just as they were about ready to begin operations. Taken as a whole, however, and considering the disadvantages of many mills, owing to the high cost of building, lack of sufficient capital and inexperienced management, the cotton manufacturing interests of the South have stood the strain of the long depression remarkably well. They have, in fact, really emphasized the South's advantages for this industry.

Mr. Edward Atkinson, of Boston, in his report for the census upon the cotton manufacturing interests of the country, after showing the much greater advantages that New England possessed for this industry as compared with the most favored districts of England, wrote:

"It may be said that this proves too much, and that the cotton spinners of the Southern States will have the same relative advantage over New England. Let this be freely admitted. We are treating the question of the future supremacy of the United States in the manufacture as well as the growth of cotton, and if the future changes in population, wealth and condition of the different sections of this country shall cause the increase of spindles, especially in the coarse fabrics, to be planted in the healthy hill country of Northern Georgia, Eastern Tennessee and the Carolinas, it will simply be the greater evidence that natural laws are paramount. If Georgia has twice the advantages over Lancashire that New England now possesses, it will only be the fault of the people of Georgia if they do not reap the benefit of it."

The force of Mr. Atkinson's logic will assuredly be seen in the not very distant future. Not Georgia, the Carolinas and Tennessee only will be the seat of important cotton manufactures; the other Southern States will also share in this growth. As yet Texas has done almost nothing in this direction; but what a magnificent field for cotton manufacturing! Pro-

ducing about 1,500,000 bales of cotton, and already having within her own borders 2,500,000 people, she exports her raw cotton and imports her dry goods. Besides supplying her own population that is so rapidly being added to, there is an immense field in the countries south of her for which she ought to manufacture large quantities of cotton goods. Too much, however, must not be expected immediately of the South in manufactures. Comparatively speaking, they are new, and it takes time to build up great industries with wide ramifications.

To show what has been done in the development of the cotton manufacturing interests of the South, we present the following comparisons, showing the number of mills, spindles and looms when the census was taken in 1880, and the number at the present time:

NUMBER OF COTTON MILLS IN THE SOUTH.			
States.	1885.	1880.	Increase.
Alabama	31	16	15
Arkansas	3	2	1
Florida	2	1	1
Georgia	66	40	26
Kentucky	9	3	6
Louisiana	9	2	7
Maryland	26	19	7
Mississippi	14	8	6
North Carolina	97	49	48
South Carolina	34	14	20
Tennessee	43	16	27
Texas	5	2	3
Virginia	14	8	6
Total	353	180	173

In the number of mills there has been an increase of nearly 100 per cent. The largest total increase, though not the largest percentage of increase, was in North Carolina. In that State the general disposition has been to build small mills and many of them, while in South Carolina and Georgia popular favor has been for large mills.

NUMBER OF SPINDLES AND LOOMS.

States.	1885.		1880.	
	No. of Spindles.	No. of Looms.	No. of Spindles.	No. of Looms.
Alabama	102,866	1,670	55,072	1,060
Arkansas	3,900	30	2,015	28
Florida	1,988	...	816	...
Georgia	385,613	8,648	800,974	4,713
Kentucky	99,704	671	90,022	73
Louisiana	45,644	936	6,097	180
Maryland	169,950	3,012	125,014	2,395
Mississippi	40,728	828	96,172	704
N. Carolina	257,576	3,118	102,767	1,960
S. Carolina	284,738	4,579	92,788	1,776
Tennessee	117,444	1,528	46,268	1,568
Texas	7,938	152	9,648	71
Virginia	73,624	1,762	44,336	1,324
Total	1,460,607	27,004	713,089	15,222

These figures show an increase of over 100 per cent. in the number of spindles, and an increase but slightly less in the number of looms. The States that show up most prominently in this increase are Alabama, Georgia, Kentucky, Louisiana, Maryland, North Carolina, South Carolina, Tennessee and Virginia. The increase in each State has been as follows:

States.	1885.	1880.
Alabama	47,794	610
Arkansas	1,685	2
Florida	1,122	...
Georgia	184,639	3,935
Kentucky	39,547	508
Louisiana	44,936	757
Maryland	14,556	124
Mississippi	154,380	1,158
North Carolina	131,944	2,803
South Carolina	71,170	460
Tennessee	5,349	81
Virginia	88,288	438
Total	746,708	11,782

In the number of spindles and looms, Georgia has made the largest increase—184,639 of the former and 3,935 of the latter—while North Carolina is second in the increase of spindles, but is exceeded in the number of looms by South Carolina. These

three States taken together show a very large gain:

Spindles.	Looms.
Georgia.....	184,639
North Carolina.....	154,380
South Carolina.....	131,944
Total gain in three States.....	471,939
	7,896

It may very truthfully be said that notwithstanding the increase in cotton mills in the South, that section has but a small percentage of the total number of spindles in the country. While this is true, yet everything must have a beginning. It is not so much to the aggregate number of spindles as to the percentage of increase in the different sections that we must look to rightly appreciate the position of this industry. In 1880 there were 10,653,435 spindles in the United States, of which the South had only 713,989, or 6.7 per cent.; while there are now 13,536,745 spindles, of which the South has 1,460,697, or 10.7 per cent. From 1880 to 1885 the increase in the number of spindles in the South was 104.5 per cent., while the increase in the balance of the country was only 21.3 per cent. It is this difference in the rate of increase more than the aggregate gain in the number of spindles that shows the progress of the South.

Value of Southern Property.

The growth of the South is probably shown in no way better than in the increase in the assessed value of property since the census year 1879-80. The remarkable gain made in this direction has been repeatedly set forth in the MANUFACTURERS' RECORD; and now the New Orleans Times-Democrat, in its special trade issue, sums up the matter by presenting the following figures, showing the assessed value of property in twelve of the Southern States in the census year June 1, 1879, to May 31, 1880, and in 1885:

States.	1879.	1880.
Alabama	\$185,400,000	\$117,861,181
Arkansas	158,350,000	86,308,441
Florida	60,042,555	59,471,618
Georgia	325,610,000	325,550,530
Kentucky	320,837,913	318,337,875
Louisiana	220,000,000	158,587,495
Mississippi	146,800,000	106,496,708
North Carolina	228,300,000	156,261,241
South Carolina	158,703,000	138,237,986
Tennessee	245,380,000	233,211,345
Texas	603,000,017	304,193,163
Virginia	300,000,000	314,576,022
Total	\$3,076,514,435	\$2,184,208,505

The increase in five years, as shown by these figures, has been \$892,305,930, despite the lower range of values of all kinds in 1885 as compared with 1879-80. The real increase has been much larger than these figures indicate; but take it as it is, what a grand record of progress it shows in five years—nearly \$900,000,000 added to the value of the South's property. It tells in a way that cannot be questioned of the South's wonderful growth.

REPORTS from the South show quite serious injury to the cotton crop, with prospects favoring a considerably smaller yield than was looked for a few weeks ago. It is quite possible that the natural disposition to exaggerate damage to crops has had some effect in this case, and that the yield will be rather better than these reports would indicate.

**Prosperity of Southern Cities—
The Record of the Year's
Business.**

It is customary with the leading daily papers in the South to publish on September 1st of each year a review of the trade of their respective cities for the commercial year ending August 31. In view of the short cotton crop of last year following a small crop in 1883, and of the general depression in all branches of trade, it was hardly to be expected that the summary of the year's trade would compare very favorably with preceding years, and yet these reviews show that the cities of the South made good progress in 1884-85, despite dull times, and that their trade in many cases was largely in excess of the preceding year.

CHARLESTON.

The News and Courier, of Charleston, with its usual enterprise, presented a very full statistical review of the trade of that city, from which we gather the following facts: The aggregate money value of Charleston's trade during the past year was \$67,650,058, against \$64,512,190 for the preceding year—an increase of over \$3,000,000, which really represents a larger increase than these figures at first sight indicate, as the values of all merchandise were lower last year than for many years. The foreign trade of the port was \$18,783,047 of exports and \$494,600 of imports, compared with \$16,115,630 exports and \$432,937 imports for the preceding year, showing that in this line of trade there was also an increase over the year before.

It is interesting and instructive to compare the statistics of manufacturing in 1880, according to the census reports, with the statistics of the past year. By doing this we gain some idea of what progress has been made in manufactures by a city that has not been usually looked upon as much of a manufacturing center. The statistics for the two years compare as follows:

	1879-80.	1884-85.
No. of factories.....	194	367
No. of hands employed....	2,146	6,861
Capital.....	\$1,718,300	\$6,283,500
Value of products.....	2,732,590	9,380,400

These figures are remarkably instructive. They show a growth in the number of manufacturing establishments from 194 to 367, or nearly double; in the number of hands employed an increase from 2,146 to 6,861; in capital invested an increase from \$1,718,300 to \$6,283,500, and in the value of products from \$2,732,590 to \$9,380,400. As will be seen from an examination of these figures, this increase in capital, in value of products and in the number of hands employed is largely due to the increase in the number of establishments, some of which are very extensive in their operations—one of them being a \$500,000 cotton mill. Charleston is certainly to be congratulated upon such a splendid showing. Her business men may well take courage and press forward more vigorously than ever.

MEMPHIS.

The Memphis Avalanche devotes 16 pages to the telling of what Memphis is and what it has done during the year. The remarkable growth of this city during the last year or two is very gratifying. Weighted with a heavy debt and afflicted with a terrible yellow fever scourge, Memphis only a few years ago gave but little promise of her present great prosperity. She has now arranged her debt, vastly improved her sanitary condition, and is rapidly building up in manufactures and trade.

There is no surer indication of the business of a city than its bank clearings, and in them can be read the pulsations of trade from week to week and year to year. During the last twelve months the weekly reports of the bank clearings were closely watched by business men, hoping to see some signs of improvement. Among the few cities that during nearly the whole of the year showed an increase week after week, as compared

with the corresponding weeks of the preceding year, Memphis stood out very prominently. The bank clearings in Memphis for the last six years show the steady growth of that city's business. They were as follows:

Years.	Bank Clearings.
1884-85.....	\$65,638,305
1883-84.....	59,287,039
1882-83.....	53,463,929
1881-82.....	44,807,787
1880-81.....	44,603,910
1879-80.....	41,874,363

Comment upon these figures is hardly necessary.

The outlook of Memphis now could scarcely be more encouraging. Transportation facilities are increasing, business improving, and everybody cheerful and expecting a big trade.

MONTGOMERY.

Some months ago a banker in Montgomery wrote to the MANUFACTURERS' RECORD that "everything in Montgomery is on a boom," and it seems that he was about right. Montgomery has, indeed, been showing remarkable activity, especially in new enterprises, for many months. The Advertiser, in summing up the year's trade, presents some interesting facts regarding the growth of Montgomery. The assessed value of property in that city and the county shows an increase of \$1,500,000 over the preceding year, while \$700,000 was invested in new buildings and street improvements. The receipts of cotton were 1,12,000 bales, or more than ever before received in one year, even during big crop years.

The 16 wholesale and 60 odd retail grocery houses did a business of about \$10,000,000, \$8,000,000 of which was wholesale trade and the remainder retail. The value of the grain, hay and feed was \$3,000,000; meats and lard, \$1,800,000; flour, including 80,000 barrels manufactured there, \$1,000,000; sugar and molasses, \$600,000; tobacco and cigars, \$250,000; wines and liquors, \$250,000; lime and cement, \$200,000; bagging and ties, \$300,000; soap, \$275,000, and grocery sundries, \$1,250,000. The value of the corn meal ground there and sold was about \$300,000. Coal sold there during the year reached something over \$100,000.

The dry goods business of the year was \$4,200,000, of which jobbers sold \$3,000,000 and retail dealers \$1,200,000.

The clothing business, including clothing manufactured there, amounted to \$450,000; the boots and shoes to \$925,000; hats and caps, \$150,000; furniture, \$275,000; books and stationery, \$150,000; jewelry, \$150,000; drugs, \$200,000. Premiums collected on insurance policies amounted to \$125,000.

The hardware business aggregated \$1,500,000; carriages, buggies, wagons and harness, \$250,000; crockery and glassware, \$130,000; 17,000,000 brick were manufactured, which, at \$6 a thousand, aggregated \$102,000; other building material may be set down at \$225,000.

The ice manufactured in Montgomery was valued at \$31,000; fertilizers manufactured there, \$350,000; fertilizers carried there and sold, \$350,000; oils manufactured and refined, \$300,000.

The manufactures of Montgomery, big and little, and including all establishments that employ productive labor, give employment to 1,500 people.

SAVANNAH.

The News, of Savannah, in its annual report shows that "dull times have failed to stem the tide of prosperity" of that city. Business generally has been good, and the volume of trade is believed to have been fully \$100,000,000. A conservative estimate of the amount of business done in the different branches of trade in Savannah for the year ended September 1, 1885, is as follows:

Cotton.....	\$37,500,000
Groceries.....	13,500,000
Liquors, tobacco and cigars.....	3,500,000
Provisions.....	4,000,000
Dry goods.....	3,500,000
Boots, shoes and hats.....	1,500,000
Naval stores.....	3,000,000
Lumber.....	2,500,000
Fertilizers.....	3,000,000
Hides, wool, etc.....	750,000
Hardware.....	500,000
Furniture.....	1,250,000
Jewelry.....	18,000,000
Retail.....	18,000,000
Miscellaneous.....	1,750,000
Total.....	\$95,000,000

**The Model City of the South.
Anniston and its Advan-**
tages.

[Editorial Correspondence Montgomery, Ala., Advertiser.]

ANNISTON, August 29, 1885.

A few years ago travelers on the old Selma, Rome & Dalton railroad could see against the side of a bleak looking hill a few miles beyond Oxford, the remains of what had once been an iron furnace. The ore bank was there, and part of the foundation of a furnace. Every thing else was desolation. Now the same travelers would never realize the spot. Instead of the solitude and dreariness that then was painful, is life, hope and progress. A few men realized what could be accomplished at a spot so favorably located, and with a faith that knew no such word as fail, invested their means and began to build up. They have created a beautiful town which has more the ways of a city than hundreds that are far more pretentious. The streets are graded and macadamized, the side-walks are paved, there is a perfect system of protection against fire, water-works ample for fifty thousand people (and the nearest and clearest of water), electric lights for streets and houses, and a thorough and rigid sanitary system. Cool heads and brains laid the foundations of this town, and generations to come will bless the men who provided at the start against evils which other towns have had to overcome at the expense of life and money. Comfort and health were the main things governing in the original plans of Anniston, and both have been amply secured.

The lofty hills will some day be the abode of thousands of citizens, who can look down upon the lovely town in the valley, but the dwellers in the latter will be as free from malaria and as healthy as those who seek the loftier spots. Anniston has been so often described in the columns of the Advertiser that it is unnecessary to dwell upon the loveliness of its location and the picturesqueness of its surroundings. Certain it is that the lovers of the beautiful can here rest their eyes upon hills and vales that rival those in any other portion of our favored land. In any direction the views are superb. As a place for homes and comforts, it would be difficult to find one answering all demands more completely than this.

Our former citizen, Gen. Daniel Tyler, and his son, Mr. Alfred L. Tyler, and Mr. Sam Noble and several of his brothers were the pioneers who forecasted the possibilities of Anniston, and exemplified their faith by their works. What has been the outcome? Let the following statement tell:

THE IRON FURNACES.

The Woodstock Iron Company own two blast furnaces, whose exclusive product is car wheel iron; capacity sixty tons per day; employees, including labor at furnace, ore diggers, charcoal makers, limestone quarrymen, repair shops, etc., with their families, foot up about 2,500 persons. The only interest owned in the town by the Woodstock Iron Company is the iron furnaces. The material used in this business is all obtained within the town limits, or in a short distance from the town. The ore used is commonly known as brown hematite. It is technically a limonite, so called because of the moisture hygroscopically held by it. This one is very low in phosphorous and silicon, the comparative absence of silicon making the ore more easily smelted than the other kinds of ore found in Alabama, and they require much less fluxing in the furnace. * * * The iron made at Anniston is exclusively for use in manufacturing railroad car wheels. There are in the State of Alabama eight companies making charcoal iron from the brown hematite ores. These furnaces are all, with two exceptions, on the line of the E. T., Va. & Ga. Railroad.

The iron made at Birmingham is from the red hematite or fossiliferous ores, and is used for rolling mill, foundry and machinery purposes. The Birmingham iron does not come in competition with the Anniston iron, as the two are now used for entirely different purposes.

Down the narrow guage road, the Anniston & Atlantic, a few miles distant, is located the thriving town of Ironaton, which may properly be called an adjunct of this town, the furnace being owned largely by the same parties as the ones here. This furnace is similar to the Anniston works, uses charcoal, and is regarded as about the best charcoal furnace in the United States. Its capacity is sixty tons a day and the ore is of the finest quality, easy accessible and inexhaustible.

The Anniston Manufacturing Company own a cotton factory of 11,500 spindles, employs 350 operatives; about 1,000 persons are sustained by this work. It makes a superior quality of brown goods, and consumes about 4,500 bales of cotton per annum. For some time it has not been running, but all arrangements are complete to commence with full force by the 1st of October.

The Anniston Land and Improvement Company owns a large part of the land within the corporate limits of the town. This company also owns and operates a steam flour and grist mill, water-works with five miles of street mains, and they also have about two hundred dwellings, ranging from the comfortable six thousand dollar cottage to the more humble three room home for the poorer laborers. This company also owns and operates for the town the electric lights by which the streets are illuminated at night.

THE INN.

The same company also owns this delightful resort for the tired traveler and the pleasure-seeker. More than anything else it shows how strong was their belief in the future of the town. It is the most delightful hotel building in the South, and it is a question whether it is surpassed in the United States. Its location is very attractive and seated on its broad verandas a wide sweep of country is spread out. A commanding view of hill and dale, mountain and vale is obtained, and the picture is so beautiful that one is loth to cease looking upon it. The building is of brick and stone, and four stories high, besides the basement, which is entirely above ground. The approaches are all macadamized walks and drives, and the park in front, consisting of sixteen acres, is handsomely laid out, and when the trees and shrubbery grow out will be an additional attraction to what appears to be already perfect. Its front is 280 feet, and the verandas extend the entire length and at each end. At least two hundred guests can be accommodated in rooms, which are supplied with furniture of the most superior kind. Additional rooms could be easily arranged for a still larger number. The bedding is new, fresh and sweet. The halls are all wide and made comfortable by seats, lounges and cosy nooks, here and there. The ladies' parlor is very handsome, with piano and furniture of exquisite pattern. The dining room is not surpassed by any in New York. The walls, side and overhead, are of polished woods, not a particle of plaster or paint being used. The tables and chairs bespeak comfort and elegance. No money has been spared in glass and crockery ware and table linens. The service is delightful and no one hurries through a meal. Everything is so well cooked and served, and the food too of such fine quality, that it is a pleasure to linger around the board. * * *

WATER SUPPLY.

The artesian well was sunk for the purpose of securing a surplus of water for the water works. The well, an eight inch opening, has been sunk 300 feet, and now forces water nearly to the surface in such quantities that the water works' steam pump, throwing 1,124,400 gallons in twenty-four hours, does not lower the level of the water in the well. The success of this well gives the town an assured supply of water for three or four

times the population now here. The intention had been to drive this well much deeper, but the vast quantity of water now obtained made a further prosecution of the boring useless. The pressure is sufficient to enable the hose company to easily throw water, without an engine, over the five-story inn and the tall chimneys of the cotton factory.

CAR WHEELS.

Noble Bros. & Co. have in operation the largest car wheel works in the South. The capacity is 200 wheels per day. They employ mostly skilled labor. They also have just completed a steam forge with two trains of rolls for making the axles on which these car wheels are fastened. The capacity of this forge is sixty tons of car axles per day, and as they will make their axles of the very best of all material, the mill will be run to its fullest capacity to supply the demand. Five hundred persons are sustained by Noble's Car Wheel Works. Mr. John Noble is the presiding genius of this large industry.

kers Manufacturing Company, of 16 Dey Street, New York City. While the principles involved in the operation of this engine are substantially the same as in other gas engines, it possesses several novel features of construction, some of which will be understood from the engraving and description.

The explosive mixture is gas and air, but the gas may be of any kind, as coal, water or oil-gas, and not necessarily the regular fixed-gas. Both the gas and the air are admitted through poppet valves, which possess the merit of requiring little power to operate, and the further advantage of growing tight by use. These valves are driven by cams on a horizontal shaft, which makes one-half as many revolutions as the crank shaft; if required to maintain speed under the imposed load, a charge is admitted and exploded at each second revolution of the engine. When this is not required—as it is not, under ordinary circumstances—the small fly-ball governor shown operates to prevent the opening of the valves for admitting the gas until such

Instead of using the usual gas jet to explode the charges, electricity is employed. For this purpose a miniature dynamo, shown below the cylinder, is employed. This dynamo is driven from a pulley ring on the crank shaft, and the current generated is conducted into the explosion chamber, where, by simple mechanism, it is broken at the proper time, producing an intense spark about the size of a head of a pin in the center of the charge, making ignition positive. With this, no matches are required to be used in starting, nor smoke or smell occurs. This is considered by the manufacturer as a very important feature, as reducing the liability of fire from escaping gas, etc.

In starting, it is only necessary to give the fly-wheel a turn or two, which produces sufficient current to start the engine, when it will continue to run until the gas is turned off.

The cup shown at the top of cylinder is for oiling the piston. The belt shown drives a small shaft carrying a wheel, to which

It will be a source of gratification to thousands to know that Dio Lewis has resumed the publication of his magazine. It appears now under the name of "Dio Lewis's Nuggets," and is crammed full of nuggets of sound sense on health topics. It is a publication that should be read in every family in the land. A more general observance of its teachings would ensure better health and happier lives than the American people now enjoy.

It is published by the Dio Lewis Publishing Company, 69-71 Bible House, New York. The price is \$1.00 per year.

Sheffield's Progress.

SHEFFIELD, ALA., Sept. 4, 1885.
Editor Manufacturers' Record:

The Sheffield Contracting Co. have resumed the manufacture of brick at their steam works, being encouraged by the large demand for brick for improvements here. The Iron City Brick Co. commence the manufacture of brick by steam to-day. They have put in a new Frick Engine and Boiler and Sword Brick Machine of large capacity. The Eureka Dry Press Brick Machine of Messrs. Humphries, Rolls & Co., is in successful operation, turning out the smoothest and shapiest brick I ever saw. The clay used by them seems to be peculiarly adapted for dry press brick, and the machine used is of such powerful construction that I have no doubt the brick will stand every test and remove the prejudices of many persons, resulting from numerous efforts to make at other places dry press brick by light machinery and of clay not adapted to the machine. The other machines in operation here make splendid stiff mud brick, so that Sheffield people can "pay their money and take their choice." The Sheffield Iron Works will be the most extensive in North Alabama. Plans are now being prepared for the machinery, &c.

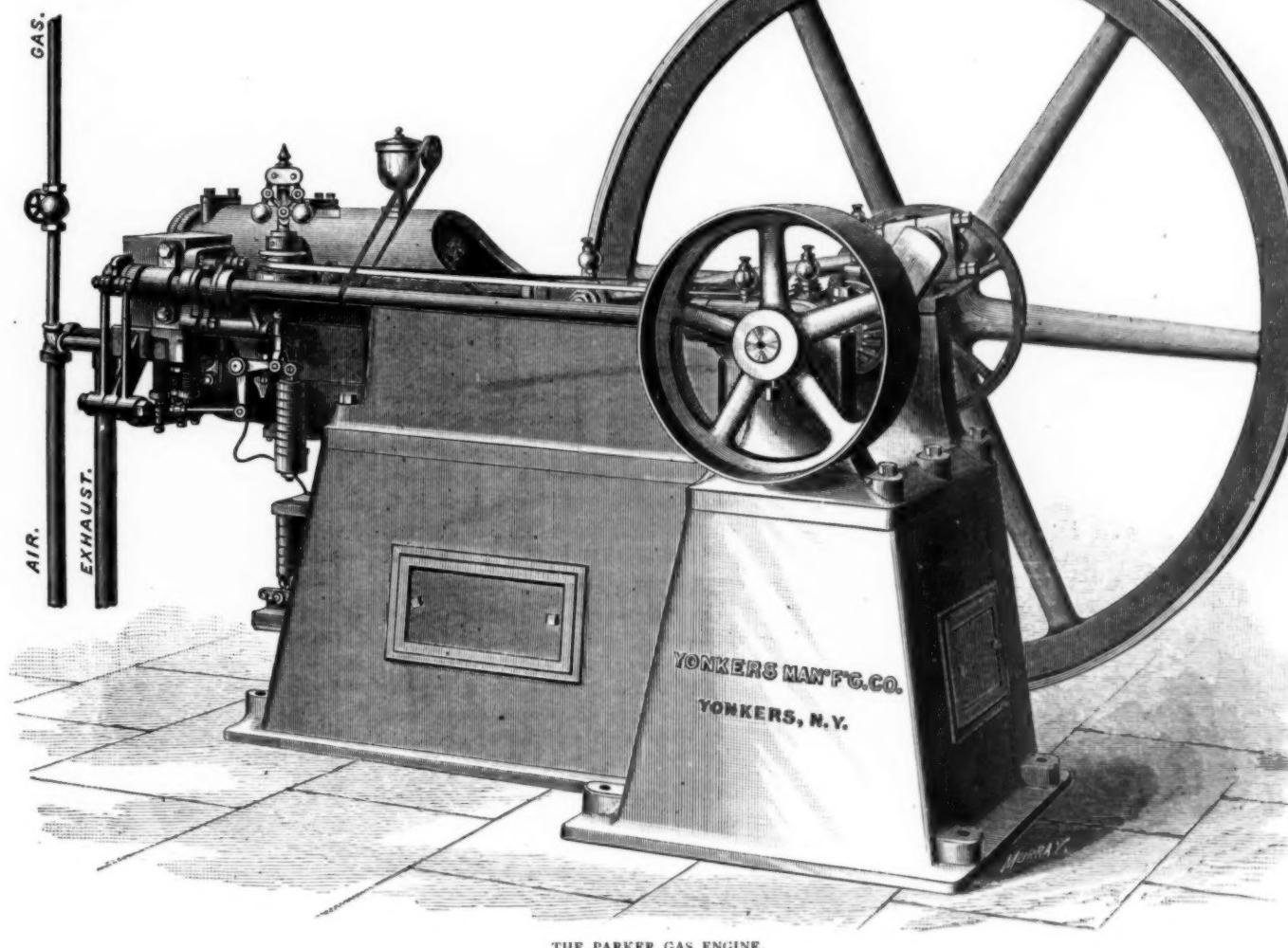
Mr. W. S. Hull, a first-class architect from Jackson, Miss., has decided to locate here for the practice of his profession, and will have his hands full. Mr. R. G. Hervey, who contracted to build the S. & B. R. R., started down the line yesterday with his chief engineer, Mr. Mitchell, who will immediately proceed to put the portion already constructed in good running order, and to extend the line to the Georgia Pacific or to Birmingham.

Visitors express surprise that Sheffield should have such a fine and well kept hotel as the Cleveland House.

Work on the Sheffield Academy is progressing rapidly.

A.

W. B. BELKNAP & Co., of Louisville, Ky., have issued a circular letter, in which they say: "The fall trade opens in such large volume and with such fair prospects that we deem it advisable to remind our friends of the variety embraced by our stock of new and first-class goods." Attention is called in the circular to the various lines of hardware, bar iron, steel, etc., in which this firm are large dealers.



THE PARKER GAS ENGINE.

GENERAL BUSINESS.

The business of Anniston is extending, and every indication of a large and growing trade. Mr. Sid Trapp, late of Montgomery, and Mr. B. B. Comer, are rapidly completing an immense cotton warehouse, and expect at no distant day to add to it a cotton compress. Their well established reputation for business sagacity will give a clear idea of what is believed to be in store for Anniston. There is a First National Bank in successful operation, and Messrs. Riddle & Co. also do a banking and collection business. Groceries, dry goods and all branches of trade are well represented by thorough and reliable merchants.

The Parker Gas Engine.

[American Machinist.]

The engraving on this page represents this engine, which has been the subject of various improvements during the past two years, and which, in its completed form, is now upon the market by the Yon-

kers Manufacturing Company.

The explosion is not brought about in the cylinder proper, but in an extension at the side and end of it. The force of the explosion operates directly upon the piston, but a large portion of the resulting heat is absorbed and retained by the walls of the explosion chamber. This construction serves the double purpose of requiring less water to be circulated in the water jacket of the cylinder, and of keeping the explosion chamber hot, which prevents waste of heat. Below, but in one in casting with the main cylinder, is an air pump, which operates to expel the products of combustion from the explosion chamber, so as to permit the next charge admitted to be free from impurities. This avoids clogging in the cylinder and the necessity of cleaning, and permits the use of any quality of gas, as previously referred to. The vacuum created by the air pump is effective in imparting power to the main piston when it is compressing the charge; this tends to an equalization of effect, and to more regular speed.

three or less loose arms are pivoted. These arms dip in the oil when at the bottom, and when at the top pass over a small funnel-shaped pipe into which the oil is stripped, and passes to the piston.

These engines appear to be thoroughly well constructed of the best materials, and with a design to secure durability and simplicity with little liability to derangement. They are manufactured for the company at the well known works of S. S. Hepworth & Co., Glenwood Station, Yonkers, N. Y., who, we are informed, will, if necessary to supply the demand, employ their extensive works to their full capacity upon them. Regular sizes are from two to ten horse power, inclusive, but larger sizes will be made on special orders.

THE AMERICAN HOUSE, Boston, is adding every day to its fame and popularity as one of the best hotels in the East. There is no pretentious display, but everything is of the very best, and a desire to please is apparent in every department.

CONSTRUCTION DEPARTMENT.

WE PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.

ALABAMA.

An effort is being made in Anniston, Ala., to organize a stove manufacturing company. E. H. Barron can give particulars.

Willard Warner, President of the Tecumseh Iron Co., Tecumseh, Ala., writes us in regard to the report that he would build a blast furnace in Sheffield, Ala. "All I can say is that we have had some talk about it but no conclusions have been reached as yet."

Connor & Co., 11 N. Grier St., Williamsport, Pa., will erect a saw mill at Calera, Ala., this fall.

Oliver Weiser, York, Pa., contemplates establishing a chain factory in Birmingham or Chattanooga.

William Elliott, Superintendent of the Coosa Furnace, Gadsden, Ala., reports that a rolling mill and foundry will probably be erected in that town.

The Alabama Ochre Co., of Montgomery, Ala., contemplate enlarging their capacity and erecting paint works. Will need grinding machinery, etc.

Minninett & Withers, Tuscaloosa, Ala., have their new foundry partly in operation.

Work has been commenced on the \$10,000 Methodist Church in Birmingham, Ala. T. W. Coffee can give particulars.

Madison county, Ala., will decide by vote in November, whether or not to spend \$200,000 to build 125 miles of Macadamized roads.

The grist and rice mill of S. A. Mountain & Son, Mobile, Ala., recently damaged by boiler explosion, has been repaired and is now in operation.

J. K. Elliott will establish a ginnery at Talladega, Ala. Machinery has been purchased.

Messrs. Berney, Sloss and Gregory have been appointed a committee by the city council, Birmingham, Ala., to secure electric lights for that city.

J. N. Wade is erecting a ginnery at Trinity, Ala.

A wood-working factory will be erected at Vesuvius, a suburb of Montgomery, Ala. W. C. Bibb Jr., Montgomery, can give particulars.

FLORIDA.

It is stated that the sash and door factory previously reported as to be built at Lake de Funiak, Fla., will be put up by C. H. Dixson, of Pensacola, Fla.

J. D. Gray, Lake de Funiak, Fla., is erecting a saw mill.

Leesburg, Fla., is discussing water-works.

J. A. Chafflin & Co., are preparing to erect a large saw mill at Milton, Fla.

There are rumors of starting a paper mill at Eustis, Fla.

GEORGIA.

Clark & Adams, Elberton, Ga., will add carriage and buggy factory to their machine shops.

Geo. F. Montgomery has ordered machinery for a large planing mill to be erected at Albany, Ga.

The Coweta Fertilizer Co., of Newnan, Ga., previously reported, have purchased a site and will shortly erect their fertilizer factory. H. C. Arnall is president.

There is talk of a company being organized in Atlanta, Ga., to manufacture cotton plaids.

James M. Smith, of Lexington, Ga., has purchased a 100 horse power engine for mill and gin, and for an oil mill which he will establish.

A large planing mill is being erected in Poulan, Ga., by an Indiana company.

Gainesville, Ga., people are discussing the building of a cotton mill.

The Vale Royal Manufacturing Company, Savannah, Ga., will put in new working machinery.

B. H. Bigham, R. S. McFarlin and others, of La Grange, Ga., have secured the right of way for a narrow gauge railroad.

The Atlanta Bridge Works have been reorganized, and a new company will take possession and start these works up again.

D. C. Hadaway will establish a steam laundry in Savannah, Ga.

The Franklin & McDonald Gold Mining Co., Ophir, Ga., are putting in new machinery.

The contract for building the new college at Cochran, Ga., has been awarded to Mike O'Brien, of Hawkinsville, Ga., at \$9,000.

Additions are being made to the mill of the La Grange Oil & Manufacturing Co., La Grange, Ga.

A stock company is being formed in Columbus, Ga., to erect a barrel factory. E. H. Jenkins can give particulars.

Stephen Tate has leased the White Path gold mine in Georgia, and will develop it.

It is reported that water works are to be established at Fort Gaines, Ga.

KENTUCKY.

The Golden King Mining Co., Louisville, Ky., the organization of which was lately reported, will purchase mining machinery.

Eisenman Bros. & Co., has been incorporated in Louisville, Ky., by J. C. Eisenman, Jacob Krieger, Sr. and David Franz, Sr. Capital Stock \$50,000, to engage in milling, operating grain elevator, &c.

The D. Green Railroad Bridge and Tunnel Indicator Company has been incorporated at Covington, Ky., by Daniel J. Dalton, Derby Green and Galvin McDowell, of Cincinnati, Ohio. Capital stock is \$250,000.

A three story mill has been built at Clinton, Ky.

LOUISIANA.

Thielman Brothers, of Baton Rouge, have established a ginnery and press at Plaquemine, La.

A new rice mill will be erected in Plaquemine, La.

The Plaquemine Lumber & Shingle Co., Plaquemine, La., have added a saw mill to their shingle mill.

The machinery for the ice factory at Donaldsonville, La., previously reported to be erected by Henry Cook, has arrived.

Mr. Garrett will probably lease his foundry near Franklin, La., to a Northerner.

Charles H. Walker has erected a three-roller mill on his plantation at Terre Bonne, La.

An electric light company, with capital of \$30,000, has been organized at Shreveport, La.

MARYLAND.

Henry Reckord & Son, Reckord, Md., contemplate building a fertilizer factory, but have not decided on location yet.

The Baltimore Cider Vinegar Company, capital stock \$6,000, has been incorporated in Baltimore by Theo. F. Hall, L. J. Cromwell, and others.

The United States Electric Lighting Co., capital stock \$250,000, has been incorporated in Baltimore by James R. Clark, Charles F. Dieterich, W. Lorman Roberts and others, to manufacture electricity for illuminating purposes, power, etc.

John R. Day, and Wm. Enfield are building a large grist mill near Prospect, Md.

Irwin Buck & Co., Baltimore, whose factory is reported in this issue as burned, will rebuild at once.

F. Lewis, Day P. O., Md., is preparing to erect a grist mill.

NORTH CAROLINA.

H. H. Reynolds, Winston, N. C., has contracted for the erection of a 5 story tobacco factory, 53x130. Will put in full supply of machinery.

G. V. Lichfield & Co., Waynesville, N. C., have about completed their band saw mill previously reported.

The Randleman Manufacturing Company, Randleman, N. C., previously reported as intending to rebuild their cotton mill, have commenced work on their building, which will be 80x140 feet.

B. F. Rodman, proprietor of the Washington Iron Works, Washington, N. C., will enlarge machine shop and add a foundry.

A. T. Robertson, Durham, N. C., proposes to build a hotel near Blowing Rock, N. C.

It is reported that the Richmond & Danville Railroad will build a large hotel at Warm Springs, N. C.

The New Garden School, New Garden, N. C., will rebuild a house lately burned; loss \$21,000.

E. J. Armstrong, Asheville, N. C., has contracted for the erection of a \$20,000 hotel at the Haywood White Sulphur Springs.

It is reported that a large steam distillery will be started at Salisbury, N. C.

Sheton Siceloff, of Midway, N. C., has purchased the Sparger Mill property, Mt. Airy, N. C., and will, it is reported, erect a saw mill.

A. R. Denison is making improvements at his mill, New Berne, N. C.

William Hooper & Son will erect a cotton gin at Mountain Island, N. C.

Goodwin & Hiss, Raleigh, N. C., previously reported as intending to manufacture wire fencing, have organized the North Carolina Wire & Picket Fence Co.

Two tobacco factories are to be built in Salisbury, N. C. One by Henkins & Sons, of Danville, Va., and one by Mr. Thomaston, of Franklinton, N. C.

SOUTH CAROLINA.

The Standard Manufacturing Co., Charleston, S. C., expect to add to their facilities for manufacturing barrels, kegs, &c.

The Mason Cotton Harvester Co., of Sumter, S. C., are contemplating the erection of works in Charleston for manufacturing Mason's cotton picker.

W. F. Claussen, Mar's Bluff, S. C., has established tile works.

The new pottery works at Aiken, S. C., have commenced manufacturing.

TENNESSEE.

Bogle & Davis, Winchester, Tenn., whose flour mill was lately burned, contemplate rebuilding.

The Brush Electric Light Co., Chattanooga, Tenn., will increase their motive power.

A coal mine near Graysville, Tenn., will be developed.

Campbell & Rosser, Denmark, Tennessee, have purchased an old mill site, and will establish a saw mill and gin.

M. S. Dick & Son, New Market, Tenn., have established a collar factory.

J. Warnes has leased the Ashwood Mills at Mossy Creek, Tenn., owned by S. G. Sanders. It is contemplated to put roller machinery in the mill.

The International Dredging and Contract Company, capital stock \$5,000,000, has been incorporated at Nashville, Tenn., by Rufus Ingalls, Albert L. Blackman, James A. Simmons, Amos Rogers, John Hoyt and William C. Dexbury, all of New York, to do a general dredging and construction business, light cities, &c.

Hardwick Bros., Dalton, Ga., will move their spoke factory to Cleveland, Tenn.

Merman Pope is moving his saw mill to near Bascom, Tenn.

M. H. Ward will double the capacity of his pork-packing establishment at Chattanooga, Tenn.

T. H. Cheek is prospecting in middle Tennessee with a view to erecting a large mill.

The Roane Iron Company, Rockwood, Tenn., have commenced work on one of their furnaces, which is to be repaired and remodeled.

J. J. Craig, Knoxville, Tenn., will erect a lumber and marble mill.

W. J. Rushton, Birmingham, Ala., will probably have the management of a 30-ton ice factory, to be built in Nashville, Tenn.

TEXAS.

The contract for grading the balance of the San Antonio & Aransas Pass Railroad (office San Antonio, Texas,) has been let.

A flour mill is being built at Keller, Texas.

A \$15,000 flour mill and \$20,000 hotel are to be built at Montague, Texas.

Vernon, Texas, will build a court house.

A \$30,000 grain warehouse is to be built in Dallas, Texas.

L. A. Ellis will erect a \$40,000 house at Austin, Texas.

The El Paso Water Power Irrigating Company, capital stock \$300,000, has been incorporated at El Paso, Texas.

The contract for the Abilene, Texas, water works has been let to Grosscup & Keith of that city.

The Paris Oil Works, Paris, Texas, have been enlarged.

VIRGINIA.

Moorman & Bro., Lynchburg, Va., will erect a 5 story brick building to be used as a tobacco warehouse and factory.

J. H. Lerner has leased Manganese property, near Goshen Station, Va., which he will develop.

New machinery for use in the Pocohontas, Va., coal mines has been ordered.

LOCKWOOD, GREENE & CO.

MILL ENGINEERS

Office, 65 Westminster St., Providence, R. I.

Carefully prepared plans, specifications and estimates furnished for the construction, equipment and organization of new mills and the revision and improvement of old.

A firm has been organized in Richmond, Va., as B. D. Chalkley, capital \$20,000, to engage in tanning, &c.

The American Manufacturing Company, iron founders, St. Paul, Minn., contemplate removing South, and desire a good location.

BURNED.

Saw mill of John Zimmerman, Looney, Virginia.

Union Point Flour mill, Union Point, Ga.

Flour mill of John E. Rowland, Hagerstown, Md., occupied by Aiken & Co. Loss about \$15,000.

The flour mill of J. Wilford & Bro., Bowling Green, Ky., was damaged by boiler explosion.

The following Baltimore firms have been burnt out or damaged by fire during the past week.

F. G. Lindy & Bros., saw and planing mill; loss \$8,000.

B. F. Sparklin, cornice manufacturer; loss \$2,000.

Irwin, Buck & Co., desk manufacturers; loss \$15,000. Will rebuild at once.

Samuel G. Taylor, machine shop; loss \$8,000.

Gosnell & Co., and the Baltimore Coffee Polishing Company.

The tile factory of Edwin Bennet, Baltimore, damaged \$3,000 by fire.

J. Schwartzwalder & Son's stave factory, Ninth street, Louisville, Ky. Loss on machinery and building \$15,000.

Saw mill of J. P. Wheeler, Franklin, Tenn.

Ax and hatchet factory of W. C. Kelly, Louisville, Ky. Loss is \$30,000. It is reported that the factory will be rebuilt.

Steam saw and grist mill of Wm. Bozone, in Choctaw county, Ga.

Grist mill, ginnery, and saw and planing mill of Reuben Morgan, Cross Plains, Ala.

Saw mill of S. M. Winchester, Newport, Tenn., damaged by boiler explosion.

Gin house of Brim & Bro., Terrell county, Ga. Loss \$2,000.

Big Saw Mill.

BURNSIDE, KY., August 31st, 1885.

Editor Manufacturers' Record:

We are constructing a new mill—main building, 50x100 feet, boiler shed 34x60 feet—main building 2 stories and very substantial. Will be ready to run by Oct. 1st. Capacity will be from 50 to 75 M per day.

KENTUCKY LUMBER COMPANY.

Contemplate Rebuilding Mill.

WINCHESTER, TENN., Aug. 30, 1885.

Editor Manufacturers' Record:

Our mill was burned on the 14 inst. We hope to rebuild soon. We had a four-run mill with splendid water-power; the finest in the country. A good dam, splendidly located, and in a fine country. Would sell the site with 110 acres of land. If we don't sell, will build a three-run mill with all late machinery.

BOYLE & DAVIS.

Will Purchase Mining Machinery.

LOUISVILLE, KY., Sept. 4th, 1885.

Editor Manufacturers' Record:

The Golden King Mining Co. has been organized under the general laws of this State, with an authorized capital of \$500,000, of which \$100,000 is to be paid up prior to commencing operation, which amount will be full paid up within this month. The company have five valuable mines and propose putting in all necessary machinery to operate them successfully. A committee have the matter in hand and will make full and personal inspection and report within three months.

GOLDEN KING MINING COMPANY,
CHAS. P. LONG, Pres't.

Carriage and Buggy Factory.

ELBERTON, GA., Sept. 3, 1885.

Editor Manufacturers' Record:

Messrs. Clark & Adams will add to their machine shops, carriage and buggy shops.

SWIFT BROS.

Wagon and Carriage Factory.

WALDO, FLA., September 4th, 1885.

Editor Manufacturers' Record:

Mr. D. Hicks of this place has established a wagon, cart and carriage factory here.

ROBT. W. CAMPBELL.

Building Mills.

LAKE DE FUNIAK, FLA., Sept. 4, 1885.

Editor Manufacturers' Record:

A sash and door factory will be built in a short time by C. H. Dixson, from Pensacola, Fla. There are two saw mills here and another building now. It is owned by J. D. Gray; will be a large mill 100 horse power.

G. D. MCSWAIN.

Grinding Machinery Needed.

MONTGOMERY, ALA., Sept. 5, 1885.

Editor Manufacturers' Record:

We now have an ochre mill in operation about nine miles from this place; are turning out goods equal to the best yellow ochre in the United States, or even French. We think of increasing our capacity by putting in a new mill for grinding, but have not as yet found a mill suitable, as to capacity or fineness. We also have in anticipation the building of works to manufacture mixed paints, &c.; have not the plans for this latter yet, so cannot specify size, &c. Are in correspondence with makers of machinery for said purpose.

ALABAMA OCHRE CO.

Will Build Foundry.

WASHINGTON, N. C., Sept. 5, 1885.

Editor Manufacturers' Record:

Increase of business has forced us to enlarge our shops. Expect to have a foundry in operation by January 1st, 1886.

WASHINGTON IRON WORKS,

B. F. RODMAN, Prop.

Rebuilding Large Cotton Mill.

RANDLEMAN, N. C., Sept. 7, 1885.

Editor Manufacturers' Record:

We have commenced the rebuilding of our cotton mill, and hope to have it ready for the machinery by the 1st of November, and want to be spinning by December. I am building a one story mill, 80x140 feet, and building to avoid fires, putting in hydrants on outside, so we may be able to get as good rate of insurance as is going.

JOHN H. FERREE, Treas.

Building a Machine Shop.

WINCHESTER, KY., Sept. 5, 1885.

Editor Manufacturers' Record:

We are erecting a machine shop here. Intend to put in necessary machinery to do all kinds of repairing and building with. We are not putting up foundry as yet, but intend to as soon as possible.

KING & CO.

Good Opening for Pork Packing.

BRISTOL, TENN., Sept. 7, 1885.

Editor Manufacturers' Record:

In conversation with General Imboden recently, he remarked that Bristol is one of the best sites in the United States for a large pork-packing establishment. If pork packers having an "eye to business" will come here and investigate, we will furnish them with such data as will convince them conclusively that there is a splendid opening here for such an enterprise.

HOBSON & D'ISAY.

Learning by Experience.

The people of Georgia have learned by experience that their railroad commission, instead of proving a great help to them as its advocates claimed it would, has proved a curse to the State and they are now moving vigorously to have it amended so as to abolish its most objectionable features.

They see now that it has kept millions of dollars out of the State, and that it is useless to look for increased railroad building in Georgia while this commission continues to exert its present despotic powers. The MANUFACTURERS' RECORD has steadily and persistently opposed the arbitrary railroad laws that for a time were so popular in the South, and the decided change of sentiment, now so noticeable in Tennessee, South Carolina and Georgia, the three States in which this subject has attracted most attention, is very gratifying. Some of the strongest champions in Georgia of the railroad commission in that State when first established have very wisely come to the conclusion that it is working great injury to the best interests of the State. They cannot shut their eyes to the fact that capitalists will not invest their money in enterprises, the control of which is absolutely taken from them by law. Georgia has suffered from this and will continue to suffer until her legislators relieve the railroads of the iniquitous laws that now control them.

Iniquitous they certainly are, for assuredly a man has the right to have some say in the management of his own property, but this right has been virtually taken from him, if his property consists of a railroad, by the State of Georgia.

Tennessee tried the railroad commission business for a while, but she very sensibly dropped it, and unless forced upon her again by political schemers there is not much danger that that State will experiment in this line any more in the near future. Now that Georgia has become aroused to the importance of curtailing the power of her commission, it behoves the people of South Carolina to be moving in the same direction.

The Southern States cannot afford to discourage the investment of capital in any enterprise calculated to aid in the development of their resources. Of all sections it most needs the help of outside men and money, and this can only be secured by liberal dealing. It is to the railroads and those interested in them, that much of the wonderful progress of the last five years in the South is due, and upon them depends the future development of the South's great agricultural, mineral and timber resources. Since 1879 over \$400,000,000 have been spent in the improvement and development of the railroad interests of the South. This vast sum has very largely come from outside capitalists. The good it has accomplished for the South is almost beyond measurement. Instead of legislation being unfriendly to

those who own, and to those who would build railroads in the South, it should give every possible encouragement to them.

There is no denying the fact that many capitalists are disposed to look upon the South with suspicion, and would much prefer to invest their money elsewhere than in that section. This feeling must be overcome. Legislative action has much to do with it, and this very railroad matter has been the cause of very much of it. If the States that now have unjust laws regarding the management of railroads will abolish them, and thus allow railroad owners the same privileges regarding the control of their property as are afforded to all other classes of property holders, the South will make a great advance in attracting the favorable attention of capitalists, and thus very materially benefit every interest of the whole section.

Large Tobacco Factory.

SALEM, N. C., September 4, 1885.

Editor Manufacturers' Record:

We have contracted with H. H. Reynolds, of Winston, N. C., to build a large tobacco factory. The building will be of brick, 53 feet wide, 130 feet long, 5 stories high. He will put in a steam engine and first-class machinery. He is an old manufacturer but wants larger quarters.

Will Build a Saw Mill.

WILLIAMSPORT, PA., Sept. 5, 1885.

Editor Manufacturers' Record:

We intend to erect a steam saw mill near Calera, Alabama, the latter part of this fall.

CONNOR & CO.

No. 11 N. Grier Street.

A few days ago we were shown some exceedingly fine specimens of gold ores that were obtained at the Young and Probes mines, in the lower part of this county. These mines were worked to some extent 30 or 40 years ago, but on account of the very rude machinery used and the difficulty of lifting the water to drain the vein, were abandoned. Those who have known these mines best, however, have continued unshaken in their opinion that they are rich in the precious metal. A few weeks ago Messrs. J. H. Summerour, J. E. Strong and E. H. Gibbons, experimenters and mineralogists, decided to open these mines and see for themselves whether the fabulous stories told of their wealth were true or false. With this purpose in view, these gentlemen went to work to open the old shafts and uncover the vein. In due time this was done, when all that the most sanguine expected was more than realized. The ores obtained not only showed up handsomely by the ordinary tests, but a large proportion of it was speckled and dotted with the yellow metal, which could be seen at a distance without the aid of a glass. The specimens which we saw were, most certainly, marvelously rich. How rich we have no means of ascertaining, but it would doubtless run to several hundred dollars per ton. The ledge barely comes to the surface, and, without exception, is pronounced, by those who have examined it, a fissile vein. From our knowledge of these mines and from the samples of ores exhibited, we feel sure that when worked by skillful miners, and with improved machinery for crushing the ores and modern appliances for saving the gold, they will prove to be bonanzas. We congratulate the gentlemen in charge on the bright prospect ahead, and wish for each the largest measure of success.

—Gainesville (Ga.) Eagle.

Car Wheel Boring Mill.

With the growth of the cast-iron car wheel industry in the United States, there has been a steady improvement in the machinery for boring the wheels, and also in the machines for turning axles.

In regard to boring car wheels, it is to the firm of William Sellers & Co., Philadelphia, that the credit is due of introducing the system described at some length in their "Treatise on Machine Tools," viz.: Of taking out the bulk of the metal on the roughing cut with a deep cut and a moderate rate of feed, and then finishing by means of a light cut, hurried through the wheel as rapidly as the nature of the material will permit. In other words, the general principle applicable alike to boring, turning and planing metals, of finishing by a very broad feed but shallow cut, so as to give the finishing tool as little as possible to do, both in work and in time, has been kept constantly in view by this firm, and made readily applicable in the feed mechanism of their various machine tools.

They say: "The finishing cutter, having but little to do, does not wear away very rapidly. In fact, its deterioration depends more upon the time taken to run it through the wheel than upon the amount of metal removed by it. A fine feed on the finishing cut wears the tool more than a quick one. The coarser the feed, within reasonable limits, the longer the cutter will remain to size."

This company have, from time to time, issued new forms of car wheel boring machines, in all of which the power feed has been so arranged as to be readily shifted from the comparatively fine feed needed in the running out, to the coarse feed they recommend for the finishing cut.

The engravings illustrate a new car wheel boring mill made by them, in which they claim to have introduced many very important improvements, which facilitate the handling of the wheels, and enable a greater number to be bored per day, as well as to make the boring more perfect.

Fig. 1 shows the machine on the side to which the power crane is attached. The crane is driven from the cone pulley shaft in the machine, and therefore no extra counter-shaft or extra belt is required to operate it. The rod A, which operates the starting and stopping of the crane hoist, is provided with two handles; one to be used when the attendant is at the front of the machine, the other close to the upright of the crane, to be used when he is at the side or near the back of the tool, as when he is lifting a wheel from the floor. The crane is provided with an automatic stop at top and bottom of its hoist, so that it cannot over-run in either direction. No special care is required on the part of the workman who is operating it. The ball lever, B, operates a clutch on the driving shaft of the table, to enable the table and the feed motion to be stopped without stopping the motion of the cone pulley or of the machinery in the upright that actuates the crane. Fig. 1 shows the crane as attached to a wheel ready for removing it from the mill, and it shows also that the vertical slide has sufficient motion to carry the boring bar up out of the way of the wheel to be lifted from the chuck.

Fig. 2 shows a wheel in place for boring, and exhibits on the side opposite to the crane the train of gearing that operates the feed. The balance wheel C, at the upper end of the feed train, is used to raise or lower the balanced vertical slide and boring bar very quickly by hand when the feed is not in gear, and the handle D serves to instantly start or stop the power feed. In the feed motion train will be observed at F a set of the discs of their "improved friction feed," the movable disc, F, being set to any required position, and at the same time clasped to place by a

handle shown at E, close to the balance wheel C. The range of feed obtainable by means of these discs, on this machine, is from 1-16 inch for the finest feed, to over 1-1/4 inch feed for the coarsest, or finishing feed, while the range of feeds between the two extremes is practically unlimited. The vertical slide H has a projection, I, at its lower end, close to where the boring bar is attached. This projection carries a slide-rest which holds a tool for facing, so arranged as to serve as a fixed tool in dressing off the narrow facing strip on car wheels, or the facing tool can be carried out, fed by hand, over the face of the wide hubs, which must be dressed for locomotive truck wheels. The cut in such case starting in the already

opinion as to the great advantage to be derived from the use of broad, flat surfaces for the slides of machines; particularly when the function of the slide is, as in this case, to resist strains tending to rotate the sliding part.

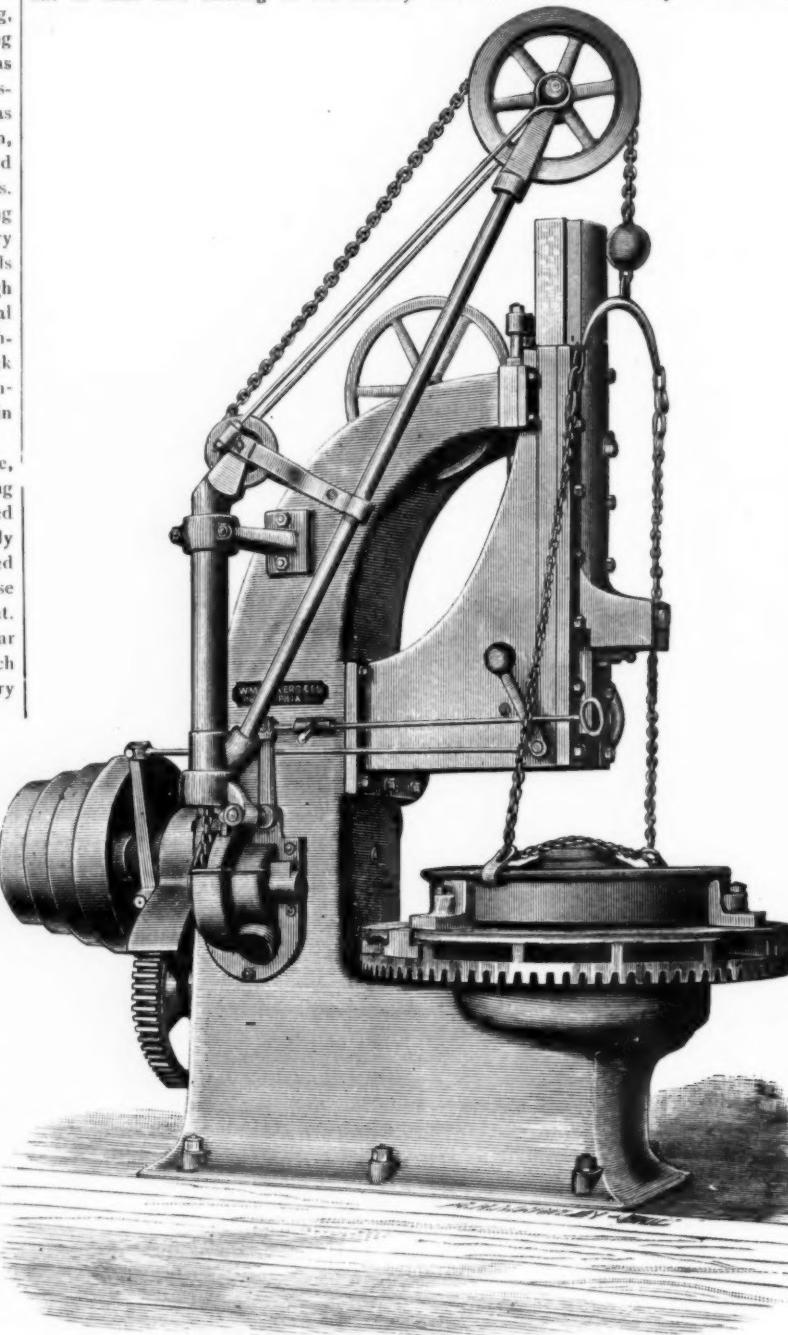
The machine is shown provided with William Sellers & Co's own arrangement of four cutting edges to the boring bar, the two cutters giving these four cutting edges being clamped to place independently, and each as readily shifted as a single cutter.

An important feature in this machine is that the workman standing directly facing the upright can with his right hand start, stop or regulate the feed, while with his left hand he can readily start and stop

jaws, which, when made as shown on the cut, will take in wheels up to 36 inches diameter; but as the face-plate is large enough to carry general work up to 50 inches diameter, they adapt chuck jaws to wheels of 42 inches diameter when ordered. The table is carried by a circular tongue fitted in a groove with wide wearing surfaces and ample provision for oiling. All the working parts are said to be fended from dirt below the table by guards that carry the chips into a pit below the base of the machine.

The Cheerful Prospect.

This season gives promise of greater prosperity than the South has known for many years. With a splendid federal administration, and no disturbing political possibilities under it or our State governments; with nothing to disturb the regular current of business; with unsurpassed crops of every sort to be used at home or sent abroad, everybody certainly may find reason to look forward to a season of prosperity which must certainly bring rich returns to those who have the energy to take advantage of opportunities. Never before have we had such crops in Texas—enough grain made to last eighteen months, or, more reasonably speaking, enough extra grain to fatten this winter two hundred thousand first-class beeves, and any number of muttons and hogs, and a cotton crop of at least seventeen hundred and fifty thousand bales, worth at the lowest estimate \$70,000,000. But the prospect in Texas is only similar to that of every other Southern State. The cotton crops of all the States is estimated at seven million bales, worth at least \$280,000,000, with grain and potatoes and fruits enough everywhere to answer all purposes and to spare. The rice crop is reported above the average and the sugar crop is said to be superb. With all this splendid prospect it is known the people are freer of debt than at any time since the war. Our farmers have every year been growing more thrifty, and have grown less and less inclined to contract debts. The people will possess more cash than ever before, and they will have to pay less out. Certainly the prospect is grand. Commercial centres look forward to times of great activity. Soon the railways will begin to move the enormous cotton crop, and commerce will assume a condition not before equaled, adding prosperity to all classes of society. After long days of distress comes this morning of cheerful prospect. Hope is revived and gives birth to new enterprises and improvements. The blessings that flow in upon us are already having their effect; distress will disappear, plenty will prevail, and the season of 1855-6 will long be remembered on account of the new era of prosperity opened to the people of the South.—Austin, Texas, Statesman.



CAR WHEEL BORING MILL—FIG. 1.

bored hole, and thus getting under the scale of the casting. An adjustable gauge-bar K, attached to the side of the frame that supports the vertical slide, can be set by means of its collar and set-screw to any height of the hub above the flange gauge of the tread, and the finger at the lower end of this bar, lowered down for this purpose, serves to indicate when enough metal has been removed from the hub.

It will be observed that the vertical slide is made rectangular, and gibbed to place with broad, flat, guiding surfaces, and the makers say that it "is made of this shape to stand the great strain brought to bear in boring, with the least liability to wear, or to be set out of concentricity with the axis of the table;" and furthermore, that they "are confirmed in the

rotation of the table, or work the crane. He can thus control the machine in all particulars from one place, and loses no time in needless running from one side of it to the other."

Some idea of the speed and power of the machine can be gathered from the statement made by the makers, that they have, on their trials of the tool, run the four-cutter bar through the master car-builders' standard size of hole at the rate of 5-16 inch

feed to the revolution on the roughing cut, enlarging the hole half an inch in diameter, and have finished the same hole with a feed of 1-3/8 inches to the revolution. In another case, the rough hole, 3-1/2 inches, was bored to 4-13-16 inches, and 0.655 inch on each side, with a feed of 1-6 inch to each revolution. The fire-plate, or revolving table, is arranged with a concentric chuck, with three

THE TEXTILE MANUFACTURERS' DIRECTORY OF THE UNITED STATES AND CANADA for 1855 has just been issued. This valuable work gives a list of all the woolen, cotton, silk, jute, flax and linen manufacturers, dealers and brokers in raw material, dry goods, commission merchants, &c., in this country and Canada. It also gives important particulars regarding each mill, amount of machinery, P. O. address, &c. H. H. Babcock, 320 and 322 Broadway, New York, is the publisher.

JAMES LEFFEL & CO., Springfield, Ohio, have published a very handsome catalogue of 128 pages, devoted to illustrating and describing their well-known water wheels and the various uses to which they can be advantageously put. This book also contains a large amount of valuable information relating to the use of water power, water wheels, &c.

Iron Ores of the Anniston District.

When the mere local announcement is made that some furnace, either at Birmingham or Chattanooga, has contracted with ore raisers here for the delivery of a certain number of cars of this ore to them daily it scarcely attracts attention, but such an announcement has a world of significance and interest in it. The two towns mentioned are undoubtedly embraced in the greatest iron manufacturing districts of the South, from the fact that the furnaces around them are pioneers in the business and received years of attention and careful study before the new furnaces in our iron district were erected. Consequently they have the run of trade, but it is quite obvious that our furnaces are making a better quality of iron and are rapidly coming into strong competition with these old established furnaces. The reason our furnaces are making a better quality of iron is because the ores here are the finest ever discovered in the South, and the furnaces to which we have alluded see that it is necessary to supplement their ores with the ores in the Anniston iron district in order to meet the competition of our furnaces. The furnaces here are making a very superior quality of iron, and it is being readily sold in the great iron centers of the North and East. Those with an abundance of experience, and whose pecuniary interests it is to oppose Anniston and its surroundings, are candid enough to confess that the ores, included in what is known as the Anniston iron district, are the finest ever discovered in the South, and as a clincher to such a confession are taking away no less than twelve or fifteen car loads of it per day to use in their own furnaces.

Sooner or later these potent facts are bound to attract the attention and money of capitalists. If these ores are needed why not plant the furnaces right here and save such an immense item in freights? That this will be done does not admit of a doubt, and in the next ten years we may expect to see the chimneys of two dozen furnaces lifting their heads in the Anniston iron district, the interests of all centering here and enriching the Model Young City of the South.

—Anniston, Ala., Watchman.

Location for Pottery Wanted.

EAST LIVERPOOL, O., Aug. 26, 1885.

Editor Manufacturers' Record:

We do not know as yet where we will locate. Are looking up a site for a pottery. Could you inform us of some opening for a white granite stone somewhere in the South?

J. Q. A. FOWLER.

MR. WILLIAM TRENHOLM, the accomplished commercial editor of the Charleston News and Courier, has favored us with the annual review of "The Trade of Charleston, S. C., 1884-85," republished from the News and Courier in book form. It is filled with statistics of much value.

SOME idea of the development of the iron sections of Alabama may be obtained from the fact that the present assessed value of property in Jefferson County, in which Birmingham is located, is \$1,079,619, an increase over 1884 of \$1,787,668, and over 1880 of \$7,651,704. This is what has been done in one county.

If you are not already a subscriber to the BALTIMORE MANUFACTURERS' RECORD, send us \$3 and you will receive it regularly for one year, or six months for \$1.50.

Law Department.

Edited by B. HOWARD HAMAN, Attorney at Law, Baltimore, Md.

It is the province of this Department to reply to enquiries that may be made by our patrons respecting the legal aspects of any matter that may arise in their business. Any questions as to doubtful points of law will be answered without charge in this column. All questions submitted must be accompanied by the name and address of the sender, not however, for publication. Letters should be addressed, Editor Law Department, MANUFACTURERS' RECORD.

NEW YORK, Sept. 7, 1885.
Editor Law Department,
Manufacturers' Record:

Dear Sir—I would like to put a question to you, in order to know whether I should send my case to a lawyer in your city, or simply "charge up" my loss. The facts are as follows: I sent, or my firm did, to a firm of Baltimoreans engaged in selling the class of goods we manufacture, a large lot of these goods to

is certainly worth trying, on your statement. You ought to repley the goods.

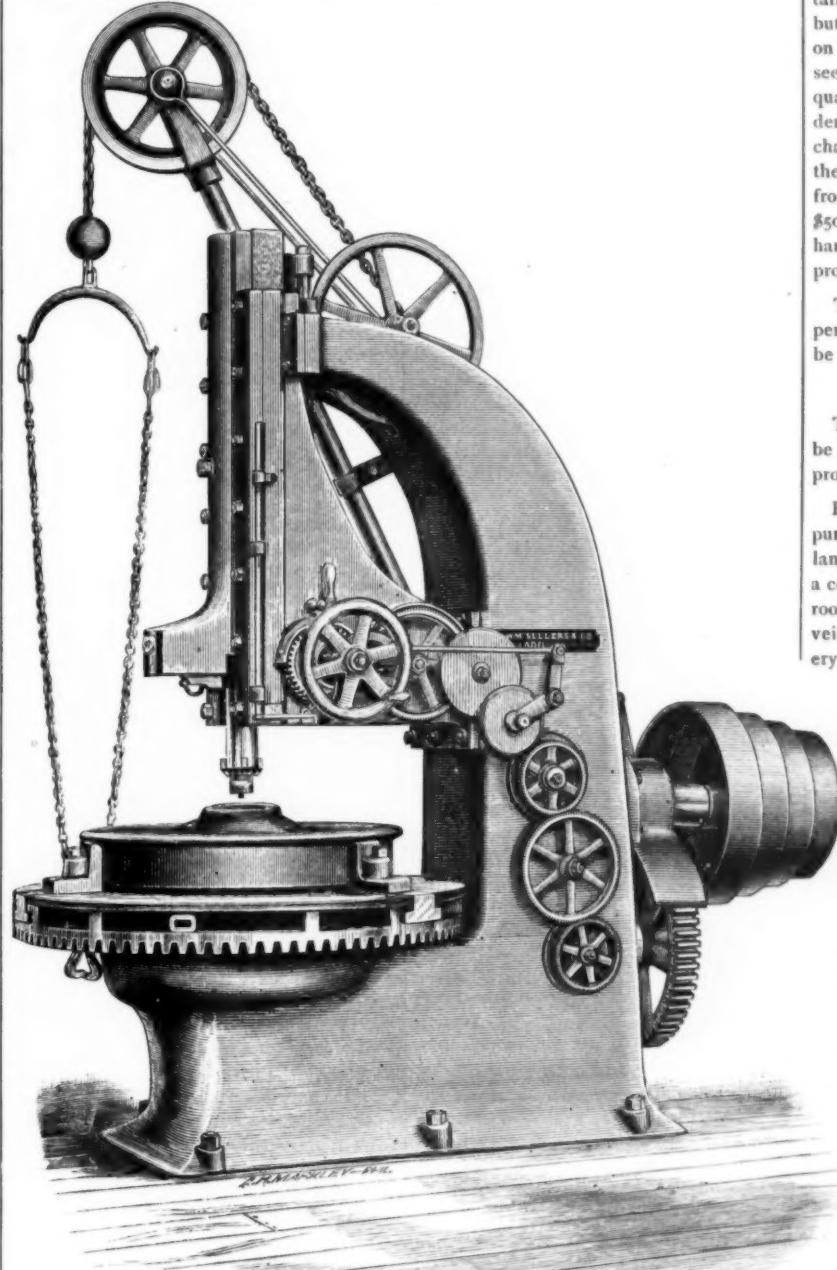
PASSAIC, N. J., Sept. 5th, 1885.

Dear Sir—Wine shipped by me was removed from the packages in which I sent them, and after being put into new vessels was sold, the vessels being furnished by the purchaser. Now, the wine is mine, but the vessels belong to another person. Where is my remedy?

Reply—Seize the old wine and new vessels, and fight it out for the ownership, if the loss is a large one. If the loss is slight, do nothing at all now, but pick your consignees.

Legal Jottings.

Distress for Rent. We see from the case of Waring vs. Slingluff (65 Md. 53) that they still have in Maryland, the common law abomination of distress for rent, though hedged about with some restraints which make it a more dangerous and difficult passage for the landlord than in ancient times,



CAR WHEEL BORING MILL—FIG. 2.

be disposed of on consignment, and some goods we sold outright to the Baltimore people. This house was in fact our general agency for the sale of goods in your city. Some time after the receipt of the consigned goods, a member of the Baltimore firm took out of stock a very valuable article, removed it to his house, and there sold it. I cannot prove that the purchaser acted in bad faith, though I strongly suspect it. He gave about a fair auction price for the merchandise. I can find the goods. Do you think I should risk a suit here? My agents have failed.

Reply—Your question involves a very nice law point. Any sale of goods, though they be consignment goods, by an agent, made in the "ordinary course of business," is good against the defrauded owner, provided the purchaser from the agent acts in good faith. In the case you mention, the sale took place in a private house, and this is not in the usual course of business. Your case

when he could distract anybody's cattle that happened to be in his tenant's field, whether they belonged to a tenant or to a stranger. Distress for rent is an infamous procedure, which came into vogue when England was run by landlords, when the tenant was but one grade above the villain, and had few rights which the landlord was bound to respect.—Central Law Journal.

Deed: Husband to Wife: Validity—A conveyance of land by a husband directly to his wife is effectual as against creditors, unless made to hinder or delay them as between the parties an equitable title is conveyed.—Supreme Court, Wisconsin. Wheeler & Wilson Manufacturing Co. vs. Mahanah.

In the letting of a house (whether furnish-

ed or unfurnished) there is no implied contract or condition that it shall be habitable.—Supreme Court, District of Columbia, General Term.

MINING NOTES.

By BRUNER & EAMES, Salisbury, N. C.

BELLE MINE.

Situated 10 miles S. E. of Carthage in Moore county, is being operated by a Washington company, although the mine is the property of Harrison & Linton of Salisbury, N. C. The Washington company are making extensive arrangements to work the mine on a large scale. In the main shaft they have attained the depth of 110 feet on the vein which is composed of quartz in highly crystallized talcose slate. The ore is free milling but has never been worked up to its value on account of the fineness of the gold which seems to be in small scales on the laminae of quartz slate. Unless the present superintendent learns of some other method he will purchase amalgamating pans and settlers for the treatment of the ore. If taken directly from the vein this ore is said to be worth \$50.00 per ton. They employ about forty hands and have spent some \$10,000 on the property to date.

The Original Conrad Hill Gold and Copper Mining tract, containing forty acres, will be sold on the 18th of September.

THE CROWELL GOLD MINE.

This mine, situated in Stanly county, is to be sold soon to satisfy a mortgage. It is the property of Baltimore people.

Harrison & Linton, of Salisbury, have purchased 700 acres of remarkable mineral land in Moore county, on which are located a copper vein, 15 feet in width, a belt of fine roofing slate, beautiful white talc, and a vein of silver ore. They will erect machinery after they have closed other transactions.

N. B. McCandless, Superintendent of the Honeycutt Gold Mine near Gold Hill P. O. in Rowan county, was in Salisbury this week and exhibited the United States Mint's return for \$3,000 in gold from the Honeycutt.

GOLD KNOB.

They have moved the five stamp mill from this mine as it was not adapted to the treatment of the heavy sulphuretted ore which is in great abundance, there being eleven veins on the property. Mr. Frank Williams, of Salisbury, is owner, and it is thought will send the ore to the works of the Gadkin Mining and Milling Company.

Several new enterprises on foot in the State that will make great activity in mining during the winter.

METALLURGICAL WORKS.

Mr. John Jacobs, a thorough and very careful mining engineer of Philadelphia, is here in the interests of the Yadkin Mining and Milling Company of Pennsylvania. He has been visiting mines in the vicinity of High Point, Thomasville, Concord and Charlotte, where he

has purchased ore for shipment to the works near Salisbury. It seems that this must eventually be a great enterprise here, as Mr. Jacobs informs us that if he can purchase the quantity of ore necessary to supply a large works, his company will erect one here that will cost a large amount of money and give employment to 200 or 300 men, as they will be prepared to treat all classes of ore and manufacture sulphuric acid and fertilizers.

ADVERTISERS wishing to reach manufacturers of all classes, mining companies, steel, iron and hardware dealers of the entire South, cannot find a better medium than the BALTIMORE MANUFACTURERS' RECORD. We are always prepared to furnish proof of our claims as to circulation.

THE MARKETS.

OFFICE MANUFACTURERS' RECORD, /
BALTIMORE, Sept. 9, 1885. /

As the season advances the signs of an improvement in trade continue to multiply. Business generally is more active than for a long time, and merchants and manufacturers are alike hopeful of returning prosperity. Notwithstanding the reported damage to the cotton crop, the railroad managers, whose business it is to provide for handling the Southern crops, are looking for the largest freight business that their roads have ever had. We have personal assurances that the managers of at least two of the largest Southern systems, whose road and connections cross the Carolinas, Georgia, &c., report that the cotton crop along their lines will be the largest ever produced, and this notwithstanding the reports of injury to the cotton. These roads are now making the preparations needed for moving this enlarged yield of cotton.

The trunk line troubles and the low rates due to their rivalry still remain unsettled, and while they remain so they will naturally exert a somewhat depressing effect upon the iron interests. It is much to be regretted that the men entrusted with the management of the enormous railroad interests of the country will not settle their disputes and thus add still more strength to the upward move of business.

In the manufactured iron market the outlook is more promising, and prices are apparently somewhat firmer, though we still quote as before, viz:

Ref. Bar Iron, 1 to 6x3/8 to 1	lb. 1 1/4@ 1.8c
" " 1 to 4 1/2x1 1/2 to 1	" 1 1/4@ 1.8c
" 3/4 to 2, round and square	" 1 1/4@ 1.8c
Hoop Iron, 1 1/2 wide and upward	" 1 1/4@ 2 1/2c
Band Iron, from 1 1/2 to 6 in. wide	" 2 1/2@ 2 1/2c
Horseshoe Iron	" 3 c
Norway Nail Rods	" 5 @ 5 1/2c
Black Diamond Cast Steel	" 9 @ 10 c
Machinery Steel	" 3 1/2@ 4 1/2c
Spring Steel	" 3 1/2@ 4 c
Common Horse Nails	" 8 @ 9 c
Railroad Spikes, 5 1/2x9-16	" 9 @ 9 1/2c
Perkins Horse Nails	" 1/2 kg. \$3.72/c
Mule Nails	" \$4.72/c

The demand for pig iron continues very moderate, and business, at least locally, does not yet share in the improvement noticed in other lines. We quote as before:

Baltimore Charcoal Wheel Iron (all Baltimore ore)	\$28.00@29.00
Virginia C. B. Charcoal Wheel Iron	28.00@29.00
Anthracite, No. 1	19.00@20.00
" "	17.00@18.00
" 3/4 to 2, Mottled and White	15.00@16.00
" "	13.00@14.00

HARDWARE.

During the week there has been a noticeable improvement in the demand for hardware, and orders, which have heretofore been mainly confined to the South, are becoming more numerous from all parts of the country. The general feeling in the trade is very hopeful, and a good business is looked for. Prices remain about the same, but in some lines there is a tendency to greater firmness.

Nails continue firm at the advance of last week, with the demand pretty good, and stocks reported decreasing. Prices are quoted at \$2@2.10, according to quality.

Philadelphia Iron Market.

PHILADELPHIA, September 8, 1885.

The interest in steel rails is maintained. \$30 is quoted for small lots. The selling price is in the neighborhood of \$28.50. Large lots are not taken very frequently. The makers are not crowding the market as they have been, believing that the resolution to restrict production to three-quarters million tons will be respected. Besides several of them have nearly all their capacity for the rest of the year taken up. Several thousand tons have been sold here within a few days in small lots. A good deal of inquiry prevails for old rails, and prices are a little higher. Everything is taken up promptly. There are inquiries

in town to-day for material for future delivery from the other side. \$17 to \$17.50 are the ruling quotations. Bessemer iron is quiet, and no sales have been reported for several days in Spiegeleisen. All of the structural mills are busy, and from that standpoint the iron trade has a very bright aspect. In merchant iron it is reported that all the bar mills throughout the State are busy, but nowhere has any advance been made. A part of the activity is due to the expectations of an advance, but the probabilities are that manufacturers will be content to take business without question. The plate mills have much more business. Every day brings in orders. A great many requirements are now coming out lest a slight advance may be attempted. There are several inquiries for Southern forge iron, due to the apparent scarcity of certain brands here. Several furnaces are well sold up, and two or three managers expect to blow in shortly. At the same time everything is not lovely. Prices are still as low as they have been at any time for months. Foundry irons are selling at \$15.50 to \$17.50. A good many makers of both crude and finished iron would like to take only enough business to carry them over the present depression, hoping in the mean time that prices will improve, and that they can secure orders to better advantage.

Cincinnati Iron Market Report

Specially reported by ROGERS, BROWN & CO., Pig Iron Commission.

CINCINNATI, Sept. 7, 1885.

There is no slackening up yet in the demand for pig iron. Last week's business was heavy with most Cincinnati, Chicago and Pittsburgh dealers. The business was divided between car works, agricultural works, general foundries and rolling mills. There is no further advance in prices to record, though the feature of the market is strength and firmness. What the future course of prices will be will depend upon how good is the foundation for the present demand. If it is healthful and based upon generally improved conditions, figures will go higher. Pig iron can not carry an advance alone, but it is quick to respond to any improvement at the foundation of trade. One very large car contract was closed during the week by a Northwestern road, the influence of which will be felt in the iron market. We quote for cash f. o. b. cars Cincinnati:

HOT-BLAST FURNACE.

Ohio and Southern Strong Coke No. 1	\$16.00@17.00
" " No. 2	15.00@16.00
" " No. 3	14.00@15.00
Ohio Soft Stonecoal, No. 1	16.50@17.00
" " No. 2	16.00@17.00
Mahoning and Shenango Valley Coke, No. 1	16.50@17.50

CHARCOAL IRON.

Hanging Rock, No. 1	\$19.00@20.00
" No. 2	17.00@19.00
Tennessee and Alabama, No. 1	17.50@18.50
" No. 2	16.50@17.50
Strong Neutral Coke	\$13.50@—
Mottled	" 12.75@—
Cold Short	" 13.00@—

CAR WHEEL AND MALLEABLE.

Southern Car-Wheel Iron	22.00@24.00
Hanging Rock C. B.	25.00@27.00
" W. B.	20.00@23.00
Lake Superior Malleable	22.00@25.00

Specially reported by E. L. HARPER & CO.

CINCINNATI, Sept. 7, 1885.

The market continues quite active, demand keeping well up with production, and at this writing in excess of it. It is not reasonable to expect, nor is it desirable to wish for a "boom," but the marked improvement in business is well calculated to give increased value to raw and manufactured materials, and prices are hardening generally, with advances secured in some lines. Quotations on crude and manufactured irons are given only for immediate acceptance, the feeling being that the increased demand is based on a healthy and legitimate business that may be safely deemed permanent. The readiness of many idle furnaces to resume in the event of a decided advance precludes the possibility of anything like a famine in the pig iron market, but the continuance of prevailing conditions must produce inevitably an agreeable change in the market, and lead to a more profitable business with producers and consumers of pig iron alike. We quote as prices current cash f. o. b. cars or wharf here:

FOUNDRY.	Cash.
Hanging Rock Charcoal, No. 1	\$19.00@20.00
" 2	17.50@18.50
Southern Charcoal	17.00@17.50
" 3	16.00@16.50
Strong Neutral Coke	15.50@16.00
" 9	14.00@15.00
American Scotch	15.50@16.00

GRAY FORGE.

Neutral Coke	13.00@13.50
Cold Short	13.00@13.50

CAR WHEEL AND MALLEABLE.

Hanging Rock, strictly cold blast	25.00@25.50
Hanging Rock, strictly warm blast	21.00@21.50
" Cranberry," N. Carolina Warm Blast	22.25@22.75
Amherst and Virginia Warm Blast	19.00@20.00
Lake Superior Charcoal, all grades	19.00@20.00

St. Louis Iron Market.

Specially reported by W. H. SHIELDS, Pig Iron and Iron Ore, No. 305 Olive Street.

ST. LOUIS, Sept. 7, 1885.

Prices remain about as last reported, and the market is firm, especially for standard brands, which are sold principally for immediate delivery. We quote:

HOT-BLAST CHARCOAL.

Missouri	\$15.00@16.50
Southern	17.00@18.00
Ohio	—

COKE AND COAL.

Missouri	14.00@16.00
Southern	15.00@17.00
American Scotch	16.00@19.00

MILL IRONS.

Missouri	14.00@14.25
Southern	13.00@13.75
CAR-WHEEL AND MALLEABLE IRON.	—

Southern	20.00@24.00
Lake Superior	20.00@23.00
MISCELLANEOUS.	—

List of Patents.

The following Patents were granted to citizens of the Southern States, bearing date Sept 1st, 1885. Reported expressly for this paper by Louis Bagger & Co., Mechanical Experts and Solicitors of Patents, Washington, D. C.

Austin, J. O. Bonham, Texas. Washing machine.....325,306

Barron, R. M., Castleberry, Ala. Hacker for chipping pine trees.....325,480

Barron, W. J., Huntersville, Ala. Sash Fastener.....325,481

Blake, L. E., El Paso, Texas. Sinking hydraulic piles.....325,484

Bliven, Chas., Norfolk, Va. Circular traveling device.....325,386

Brooks, R. M. and J. M., Jenkinsville, Ga. Seed-planter and fertilizer-distributer.....325,496

Brown, M. T., Tyler, Texas. Cotton-compressor.....325,314

Butts, J. B., Columbus, Ga. Planter, seeder and fertilizer-distributer.....325,393

Chisholm, T. L., Sherman, Texas. Motor.....325,318

Cochrane, W. F., Harper's Ferry, W. Va. Harvester.....325,319

Harvester.....325,319

Cummins, J. R., McKinney. Plow.....325,329

Delaney, Alex., and J. M. Bond, Richmond, Va. Saw-mill dog.....325,507

Easley, Levi, Whitt, Texas. Corn-planter.....325,400

Elliston, J. J., Halesborough, Texas. Cotton seed planter.....325,514

Erlanger, Chas., Baltimore, Md. Button-fastening machine.....325,516

Frankel, Jacob, Baltimore, Md. Knit-jacket.....325,525

Franklin, Solomon, Pine Bluff, Ark. Combed bine harrow, cultivator and plow.....325,508

Haden, J. J., and W. S. Gobble, Texarkana, Ark. Steam cooking apparatus.....325,335

Hardy, L. T., Houston Mines, Va. Cattle-guard.....323,606

Harris, D. M., Aberdeen, Miss. Machine for clearing the sides of railway tracks.....325,340

Harrison, J. F., Hollownville, Ga. Combined guano-distributer and seed-planter.....325,535

Hatcher, L. W., Knoxville, Ga. Combined planter and fertilizer-distributer.....325,341

Headen, Minnis, Christiansburg, Va. Oliver.....325,342

Lain, J. J., Brazos Point, Texas. Tug and hip strap attachment for harness.....325,547

Mallard, W. S., Darien, Ga. Fish-pond trunk.....325,552

Myers, Ephraim, Creagerstown, Md. Fence.....325,621

Noble, J. R., and J. D. Bullock, Ripley, Miss. Gag and muzzle.....325,434

Price, R. L., Forestburg, Texas. Stalk-cutter.....325,628

Smith, J. E., Charleston, Ark. Churn.....325,572

Stovall, W. L., Winona, Miss. Gate-latch.....325,577

Wardwell, J. B., Ormond, Fla. Basket-support for ladders.....325,290

Watson, T. A., Houston, Texas. Mosquito-net frame.....325,464

Williams, J. S., Beaver Dam, Ky. Car-axle box.....325,466

Wilson, J. G., Cameron, Texas. Gate.....325,468

PATENT LAW.

TRADE MARK LAW.

PAINTS, OILS, &c.

PAINTS.

Black Lamp, coach painters.....	1 lb 20c
Black Lamp, ordinary.....	1 lb 40c
Black Ivory Drop, fair.....	12@15c
Black Ivory Drop, best.....	.30c
Black Paint, in oil.....kgs, 6c; assorted cans, 9c	
Blue Prussian, fair to best, in oil.....	.30@40c
Blue Prussian, fair to best, in oil.....	.35@40c
Blue Chinese, dry.....	.70c
Blue Ultramarine.....	15@35c
Brown, Spanish.....	.2c
Brown, Van Dycke.....	2@15c
Green, chrome.....	2@15c
Green, chrome, in oil.....	.90@12@15c
Green, Paris.....good, 20c; best, 25c	
Green, Paris, in oil.....good, 20c; best, 25c	
Iron Paint, brown.....	1 lb 20c
Iron Paint, purple.....	1 lb 30c
Iron Paint, ground in oil, bright red.....	1 lb 50c
Iron Paint, ground in oil, red.....	1 lb 50c
Iron Paint, ground in oil, brown.....	1 lb 40c
Iron Paint, ground in oil, purple.....	1 lb 60c
Linseed Oil, raw.....	.48c
Single Boiled.....	.50c
Mineral Paints.....	2@4c
Orange Mineral.....	.20c
Red Lead, American.....	.64@7c
Red Venetian, (English) dry.....	\$1.50 to \$1.75
Red Venetian, in oil.....assorted cans, 9c; kgs, 6c	
Red Indian, dry.....	.80@15c
Rose Pink.....	10@13c
Sienna, American, raw.....	.4c
Sienna, Burnt.....	.4c
Sienna, burnt, in oil.....	.80@15c
Sienna, raw.....	.80@15c
Umber, burnt.....	.4@8c
Umber, burnt, in oil.....	.80@15c
Umber, raw.....	.34@7c
Umber, raw, in oil.....	.80@15c
Vermilion, Chinese.....	.90c
Vermilion, English.....	.60@5c
Vermilion, American, common.....	.15c
White Lead, American, pure dry.....	.64@6c
White Lead, American, pure in oil.....	.64@6c
White, Paris, English, prime.....	.15c@12c
Yellow Ochre, French.....	.15c
Yellow Ochre, French, in oil.....ass'td cans, 9c; kgs, 6c	
Yellow Ochre, American.....	.15c@12c
Yellow Chrome.....	.80@15c
Yellow Chrome, in oil.....	.80@15c
Zinc White, American, No. 1, dry.....	.60@7c
Zinc White, American, No. 1, in oil.....	.64@9c
Zinc White, French (Parish) dry.....	.60@12c
Zinc White, French in oil.....	.60@14c

OILS.

Bleached W. Sperm oil.....	2@1 05
Nat. " "	95@2 00
B. W. Elephant oil.....	75@
" Whale oil.....	62@ 65
Prime Lard oil.....	53@ 55
Extra No. 1 Lard oil.....	50@ 50
Lubricating oils.....	12@ 25
Miner's oil.....	45@ 50
W. Pressed Fish oil.....	35@ —
Neatsfoot oil.....	55@ 75
Steam-refined Cylinder oil.....	40@ 55
Best Filtered "	65@ —
Signal oil.....	55@ —
Paraffine.....	12@ 20

SUNDRIES.

Benzine.....	1 gal., 20@10c
Turpentine.....	1 gal., 30c
Chalk.....	.36c
Chalk, block.....	.3c
Dryer patent Am'n.....	ass'td cans, 8c; keg, 7c
Frostings.....	.40c
Glue, white.....	12@36c
Glue, sheet.....	14@80c
Glue, ordinary.....	9@12
Glaziers' Points, zinc.....	.8c
Gum, Copal.....	.36c
Gum, Damar.....	.25c

METALS.

TIN PLATES.

BLOCK TIN.

"Lamb and Flag," and "Straits."	
Large Pigs.....	24
Small Pigs.....	25
Bars.....	28

TINNERS' SOLDER.

No. 1 Refined.....	23
Market Half-and-Half.....	24
Strictly Half-and-Half.....	14@2

ROOFING PLATE.

IC, 14x20, Choice Charcoal Terne.....	5 50
IX, 14x20, " " ".....	7 00
IC, 20x28, " " ".....	11 00
IX, 20x28, " " ".....	14 00
IC, 20x28, Extra fine quality, charcoal roofing, genuine "old style" redipped.....	14 00
IX, 20x28, " " ".....	18 00

COKE PLATES.

IC, 10x14, bright, "B. V." grade.....	5 00
IC, 14x20, " " ".....	5 00
IX, 14x20, " " ".....	6 50
IC, 10x20, Gutters.....	8 50

SHEET ZINC.

In casks of 600 lbs., 1 lb.....	5 50
In smaller quantities, 1 lb.....	6

TIN PLATES.

IC, 10x14, Charcoal.....	5 50
IX, 10x14, ".....	7 50
IC, 12x12, ".....	5 70
IX, 12x12, ".....	7 70
IC, 14x20, ".....	5 50
IX, 14x20, ".....	7 50
IXX, 14x20, ".....	9 50
IXXX, 14x20, ".....	11 50
IXXXX, 14x20, ".....	13 50
IX, 20x28, ".....	18 00
DC, 100, Plate.....	5 50
DX, 100, ".....	7 50
DX, 100, ".....	9 55
DX, 100, ".....	9 55

BABBITT METAL.

A 1.....	15
No. 1 Ordinary.....	5
Antimony.....	18
Excelsior Babbitt Metal, No. 2.....	10
" " ".....	4
LEAD.	9

Pig.....	4 1/2
Bar, (15 oz. bars).....	6 1/2
Sheet.....	7
Pipe, full coils.....	6

COPPER.	
Tinned Sheathing, 14x48, 14, 16, 18 oz.....	.20
" " " Planch'd, 14x48, 14, 16 oz.....	.30
" " " Boilers 7, 8, 9.....	.35
Cooper Pin Bottoms.....	.15
Brazier's Copper, 15 to 100 lb.....	.20
" " " 10 to 12 lb.....	.22
" " " 8 lb.....	.24
" " " 6 lb.....	.28
Bolt.....	.20
Tinning extra.....	.40

BRASS.

ROLL AND SHEET BRASS.
Brown & Sharpe's Gauge the Standard.

New List, Jan. 17, 1884.
Dis 30&30&5 1/2

COMMON HIGH BRASS.

Wider than {	3	10	12	14	16	18
and including {	10	12	14	16	18	20
To No. 20, inclusive.....	.21	.22	.23	.25	.27	.29
Nos. 21, 22, 23 and 24, 25.....	.23	.24	.26	.28	.30	.32
Nos. 25 and 26.....	.23 1/2	.23 1/2	.24 1/2	.24 1/2	.27	.31
Nos. 27 and 28.....	.23	.24	.25	.26	.28	.32
Add 9 cts. 1 lb. for sheets cut to particular widths and lengths.						
Add 1/4 c. 1 lb. additional on each number thinner than Nos. 28 to 38 inclusive.						
Brass thinner than No. 38 is Platers' Brass.						
Printers' rules.....						
Printers' Sheets and Plates cut to particular sizes and lengths to No. 20, inclusive.....						
Brazing, Spinning and Spring Brass, one cent more than common High Brass.						
Low Brass four cts. 1 lb. more than common High Brass.						
Gilding, Oreide and Bronze seven cts. 1 lb. more than common High Brass.						

SLITTING METAL.

Add to list as follows:

Over 3/4 in. to 2 in., inclusive, Nos. 12 to 20, inclusive.....	1/2
Over 3/4 in. to 3/4 in., inclusive, Nos. 12 to 28, inclusive.....	1/4
Over 3/4 in. to 1 1/2 in., inclusive, Nos. 12 to 28, inclusive.....	1/2
Over 1 1/2 in. to 2 in., inclusive, Nos. 12 to 28, inclusive.....	1/4
Over 1 1/2 in. and narrower, Nos. 22 to 28, inclusive, not less than.....	1/8
Slit Metal cut to particular lengths, 1 lb. additional.....	1/8

PLATERS' OR GOLD METAL.

In bars.....	.40c
In ingots.....	.40c
In ingots, planed or polished.....	.40c

WIRE IN COILS.

Old English gauge the Standard.

Common	High	Low	Bronze	Copper.
All Nos. to No. 16, inclusive.....	\$.22	\$.26	\$.30	
Nos. 17 and 18.....	.23	.27	.31	
" 19 and 20.....	.24	.28	.32	
" 21.....	.25	.29	.33	
" 22.....	.26	.30	.34	

PARKER GAS ENGINE.

Guaranteed to Run with Less Gas than Any Other Gas Engine Known.

Always Ready
to Start.

2 to 10 HORSE
POWER.

Lighted by Electric
Spark.

Simple.

Durable.

Effective.



No Boiler.

No Coal.

No Ashes to
be Removed.

No Chimney.

No Engineer.

No Smoke.

No Smell.

No Slide Valve to Get Out of Order. Does Not Hazard Insurance.
No Small Parts to Clog Up.
Is Noiseless in Running.
Requires no Matches to Ignite the Gas. Can be Run with Any Kind of Gas.
It is the only Engine that can run equally well with Gasoline Gas or Carbureted Air, as with regular fixed gas. Speed can be adjusted while running from 80 to 200 revolutions per minute.

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61 Oliver St., Boston, Mass.

JOSHUA C. COE, Agent for Maryland and Virginia,
O'Donald's Wharf, Baltimore, Md.

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Anniston Mfg. Co., Anniston Ala.
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Rose Mining Co., Charleston, S. C.
Maryland Pavement Co., Baltimore, Md.
Brush Electric Light Co., Baltimore, Md.
Ettrick, Mattoaca and Battersea Mfg. Co's.,
Petersburg, Va.
Rasin Fertilizing Co., Baltimore, Md.
Tanner & Delaney Engine Co., Richmond, Va.
Sibley Mills, Augusta, Ga.

Graniteville Mfg. Co., Graniteville, S. C.
Charleston Bagging Co., Charleston, S. C.
P. H. Mayo & Bros., Richmond, Va.
Phosphate Mining Co., Beaufort, S. C.
Brush Swan Electric Light Co., Norfolk, Va.
Columbus Ice & Refrigerator Co., Columbus, Ga.
Lenoir Manufacturing Co., Lenoir, East Tennessee.
Vanceuse Mill, Graniteville, S. C.

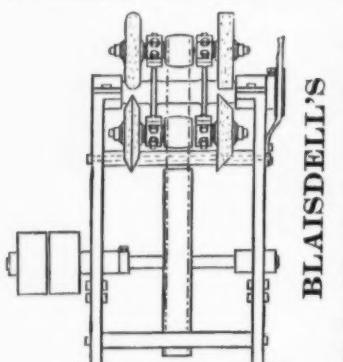
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Eight Wheel Emery Machine,
FOR GRINDING
ALL KINDS OF IRREGULAR CUTTERS.

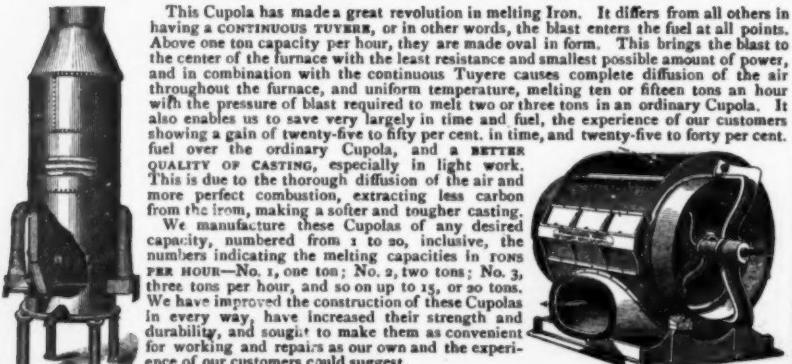


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This Cupola has made a great revolution in melting Iron. It differs from all others in having a CONTINUOUS TUYERE, or in other words, the blast enters the fuel at all points. Above one ton capacity per hour, they are made oval in form. This brings the blast to the center of the furnace with the least resistance and smallest possible amount of power, and in combination with the continuous Tuyere causes complete diffusion of the air throughout the furnace, and uniform temperature, melting ten or fifteen tons an hour with the pressure of blast required to melt two or three tons in an ordinary Cupola. It also enables us to save very largely in time and fuel, the experience of our customers showing a gain of twenty-five to fifty per cent. in time, and twenty-five to forty per cent. fuel over the ordinary Cupola, and a BETTER QUALITY OF CASTING, especially in light work. This is due to the thorough diffusion of the air and more perfect combustion, extracting less carbon from the iron, making a softer and tougher casting.

We manufacture these Cupolas of any desired capacity, numbered from 1 to 20, inclusive, the numbers indicating the melting capacities in tons per hour—No. 1, one ton; No. 2, two tons; No. 3, three tons per hour, and so on up to 15, or 20 tons. We have improved the construction of these Cupolas in every way, have increased their strength and durability, and sought to make them as convenient for working and repairs as our own and the experience of our customers could suggest.

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MANUFACTURERS,

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KEYSTONE BOILER RIVETS.

Cold-Punched Square and Hexagon Nuts.

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TANK AND COOPERS' RIVETS.

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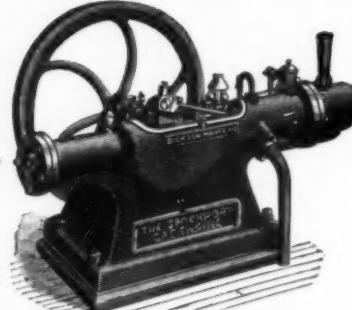
Durability,

Reliability,

Economy,

Lightness, and

General Design.



Starts with Ease.

Receives an Impulse
at every revolution.

Runs Silently.

Uses Less Gas per
Horse-Power than
any other.

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Locomotives, Stationary Engines, Boilers, Mining Machinery,
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SAFETY BRAKES.

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Hoisting Engines for all purposes.

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SMITH, MYERS & SCHNIER,

402 to 412 W. Front Street,
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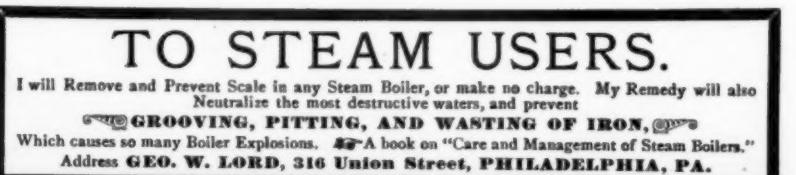
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BOILERS AND

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Send for Illustrated Catalogue
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TO STEAM USERS.

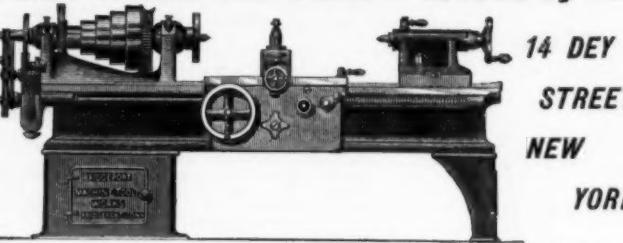
I will Remove and Prevent Scale in any Steam Boiler, or make no charge. My Remedy will also Neutralize the most destructive waters, and prevent

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Which causes so many Boiler Explosions. A book on "Care and Management of Steam Boilers."
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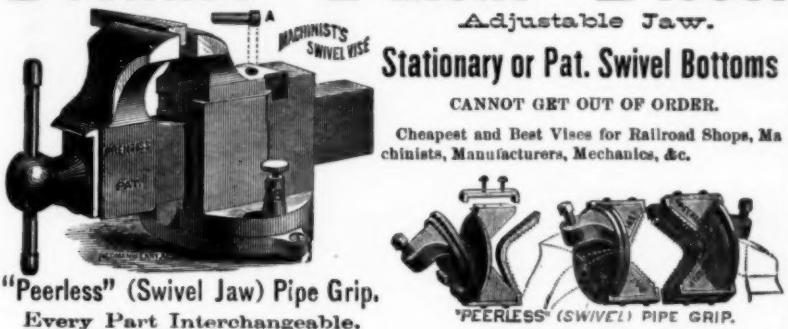
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Every Part Interchangeable.
CAN BE USED ON ANY VISE.

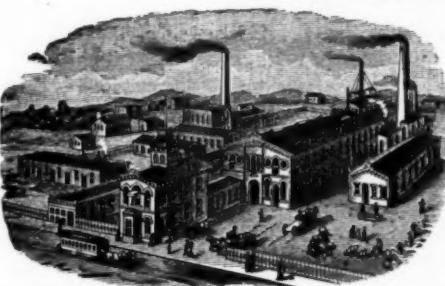
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Double and Single Gate, $\frac{1}{4}$ Inch to
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Also Fire Hydrants, Yard and Wash Hydrants, Check and Foot Valves.

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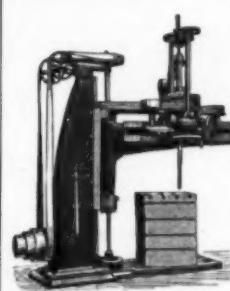
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Iron and Steel-Working Machine Tools

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"Mining PLANTS," Concentrating
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Furnished Complete.

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The Babcock & Wilcox Water Tube Boilers.

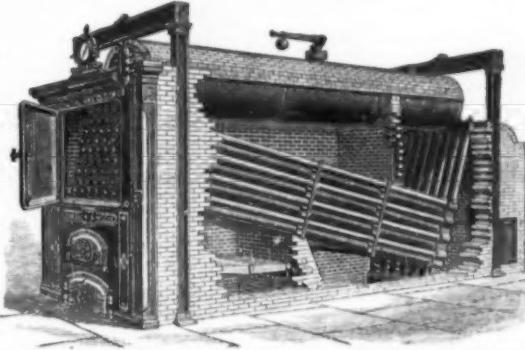
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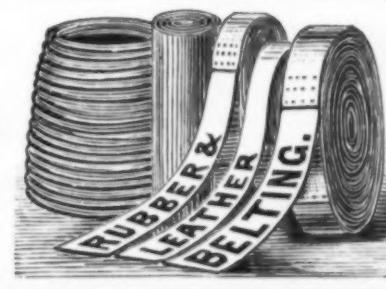


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Machine-molded Pulleys save from 10 to 20 per cent. in turning, balancing, and also in weight; and, being perfectly proportioned, are far stronger than hand-made PULLEYS. We have a capacity of 150 pulley castings a day, ranging from 6 inch diameter, 11 inch face, to 36 inch diameter, $\frac{1}{4}$ inch face. — We also keep a large assortment of Journal-box Castings, Face Couplings, Set Collars, Boiler Fronts, etc., on hand. — Send for Price-Lists.

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THE ONLY PEACH PARER, THE BEST APPLE PARER,
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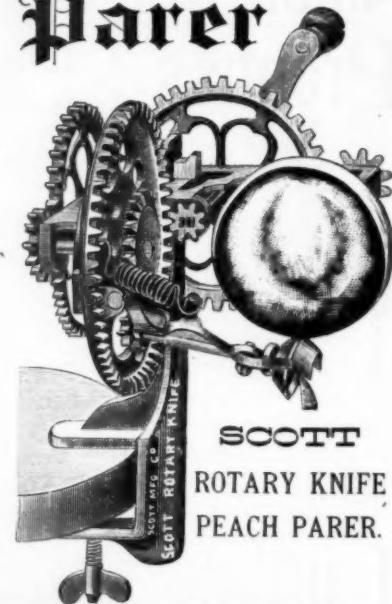
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PATENT IRON FRAMED TRAYS FOR FRUIT EVAPORATORS.

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LOCOMOTIVES FOR ALL KINDS OF SERVICE

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PUMPING ENGINES OF HIGH DUTY TYPES.

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BOILERS OF EVERY KIND & SIZE.

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GEARS BOTH CAST & CUT.

HEAVY MACHINERY OF ALL KINDS.

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SOLE AMERICAN BUILDERS OF THE STOCKPORT GAS ENGINE, AND THE LIGHTFOOT DRY AIR REFRIGERATING ENGINE.

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The Recognized Organ of Southern Agriculture and Industrial Progress of the South. Farmers, Lawyers and Business Men Read it.

PRESS AND PEOPLE ENDORSE WHAT ADVERTISERS SAY.

"We have been astonished at the wide range from which inquiries have come to us, referring to the advertisement of our Blue Grass Sulky Plow in THE SOUTHERN CULTIVATOR. Letters have come to us from all the Southern States, from the Carolinas round to Texas. We could not have had a better proof of the extent of your circulation. Let us know what your charge is to be for three months' insertion of the advertisement. How much for four months? We shall hope to run other of our improved implements for cotton culture in your columns if results from present ad. are encouraging." Truly, etc.

"CULTIVATOR PUBLISHING CO., ATLANTA, GA.—An infringement on our machine having appeared, it is necessary to change my advertisement in the CULTIVATOR. Enclosed please find copy, which insert in place of the one now appearing in it. I can say that I do not believe that there is an advertising medium in the South that could accomplish the same result for its patrons in five insertions that THE CULTIVATOR will in one. With many thanks for your many kindnesses to me, I am, very truly,

THOS. MEIKLE & CO., Louisville, Ky."

"THE SOUTHERN CULTIVATOR is the oldest and now the handsomest Agricultural Journal in the South. By far the best published, it combines "The Dixie Farmer," Atlanta, Ga.; "The Plantation," Montgomery, Ala.; "The Rural Sun," Nashville, Tenn.; "The Southern Farmers' Monthly," Savannah, Ga., and unites the patrons of these with its own large list of subscribers."

"In club: THE SOUTHERN CULTIVATOR and "The Southern World," one year, both papers, \$1.25. Sample copies free.

STILL ANOTHER. AS AN ADVERTISING MEDIUM.

Since the receipt of the above from Thos. Meikle & Co., we are in receipt of another under date of August 3d. Our advertisement in THE SOUTHERN CULTIVATOR is bearing abundant fruit, and we inclose you a letter from Kelleyville, Texas, as a sample of the many we are receiving due to THE CULTIVATOR. As the writer of the letter is unknown to us, and his communication unsolicited, it carries the greater weight."

AS AN EDUCATOR.

Since becoming familiar with your Magazine, we are more and more struck with its merits as an educator for the Southern planting interest and medium of communicating with the same. We know of no Agricultural Journal that contains so much sound scientific information with so much practical good sense. THOS. MEIKLE & CO., Louisville, Ky.

Sample Copies Free.
Drawer 8.

JAS. P. HARRISON, Business Manager,
ATLANTA, GA.

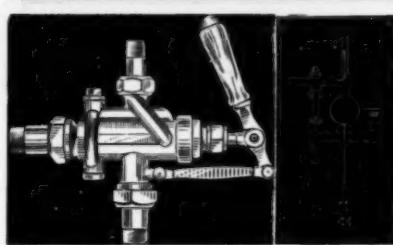
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Conn. Valley Mfg. Co.....	dis 60&100/100	
Douglas Mfg. Co.....	from list of	
Ives.....	Jan. 7, 1880	
Cook's Douglass Mfg. Co.....	dis 40&10	
Griswold.....	dis 50&10	
Patent Solid Head.....	dis 25	
Russell Jennings' Auger Dowell, Machine- Dowel and Hand Rail Bits.....	dis 10&10/10	
Ives' " Jennings" Bits.....	dis 40&10/10	
Expansive Bits, Clark's small, \$18; large, 26....	dis 25	
Expansive Bits, Ives'.....	\$20/30, dis 33 1/3	
Expansive Bits, Blake's.....	\$20, dis 40	
Hollow Augers, Ives'.....	dis 25	
Hollow Augers, Douglass'.....	dis 25	
Hol. Aug., Bonney's Adjust., \$1 doz \$4.8, dis 20&10	%	
Hol. Aug., Stearns' Adjust., \$1 doz \$4.8, dis 20&10	%	
Hol. Aug., Ives' Expansive, each \$4.50, dis 20	%	
Hol. Aug., Universal Expansive, each \$4.50, dis 20	%	
Wood's.....	dis 25	
Gimlet Bits.....	\$7.50 per gross, dis 50	
Gimlet Bits, Diamond.....	\$1 doz \$1.25, dis 40	
Double Cut Gimlet Bits, Shepherdson's.....	dis 40	
Double Cut Gimlet Bits, Douglass'.....	dis 33 1/3	
Double Cut Gimlet Bits, Ives'.....	dis 50	
Morse's Bit Stock Drill.....	dis 25	
L'Hommedieu's Ship Anglers.....	dis 15	
	AWL HAFTS.	
Sewing Brass Ferrule.....	\$.30 per gross—dis 40&10	
Patent Sewing, Short.....	\$.10 per gross—dis 40&10	
Patent Sewing, Long.....	\$.20 per gross, net	
Patent Peg, Plain Top.....	\$.10 per gross—dis 40&10	
Patent Peg, Leather Top.....	\$.12 per gross—dis 40&10	
	AWLS, BRAD SETS, &c.	
Awls, Sewing, Common.....	.75c. to .75	
Awls, Shouldered Peg.....	.75c. to .75	
Awls, Patent Peg.....	.50c. to .50	
Awls, Shouldered Brad, \$1 gross \$2.70—dis 25&10	%	
Awls, Handled Brad.....	\$.75 per gross—dis 25&10	
Brad Sets, Aiken's.....	\$1 doz \$1—dis 45&10	
Brad Sets, No. 42, \$10.50; No. 43, \$12.50.....	dis 70	
Brad Sets, Stanley's Exc., No. 1, \$1.50, dis 30&10	%	
Brad Sets, Stanley's Exc., No. 2, \$4.80, dis 30&10	%	
Brad Sets, Stanley's Exc., No. 3, \$7.80, dis 30&10	%	
	AXES.	
Collins & Co.....	\$7.25; beveled, \$7.75	
Cohoes Mfg. Co.....	\$7.25; beveled, \$7.75	
Lippincott or Mann's.....		
Single Bit, 4 1/2 to 5 1/2 and under.....	\$6.50 net	
Single Bit, 4 1/2 to 6 and over.....	\$7.00 net	
Single Bit, beveled.....	50c. doz. advance	
Double Bit, 4 1/2 to 5 1/2 and under.....	\$7.00 net	
Double Bit, 4 1/2 to 6 and over.....	\$7.00 net	
Double Bit, beveled.....	\$1.00 per doz. advance	
Second quality Axes.....	.50 cts. less than above	
	AXLES.	
Sheldon & Co., iron.....	.55c. off	
" " steel.....	.55c. off	
	AXLE GREASE—Frazer's.	
	BALANCES.	
Spring Balances.....	dis 40&10	
	BELLS.	
Hand, Light Brass.....	dis 75&10	
Hand, White Metal.....	dis 10	
Hand, Silver Chime.....	dis 20&10	
Hand, Globe (Cone's Patent).....	dis 25&10	
Gong, Abbe's.....	dis 20&10	
Gong, Yankee.....	dis 30&10	
Gong, Barton's.....	dis 30&10	
Leon Reading.....	dis 25&10	
Pull, Brook's.....	dis 50&10	
Crank, Taylor's.....	dis 25&10	
Lever, Sargent's.....	dis 25&10	
Bloomfield.....	dis 20	
Lever, R. & E. M. Co's.....	dis 45&100	
Call.....	dis 25	
Cow, Common Wrought.....	dis 55&10	
Cow, Western, Sargent's List.....	dis 55&10	
Cow, Kentucky, Sargent's List.....	dis 55&10	
Cow, Moore's or Dodge's, Generic Ky., new list: Nos. 0 1 1/2 2 3 5 5 6 Hog J. dis. 70	\$12 \$10 \$8 \$7 \$4 \$3.50 \$2.50 \$5	
Cow, Texas " Star".....	dis 40	
	BELLows.	
Blacksmith's Common.....	dis 50	
Molder's.....	dis 25	
Hand Bellows.....	dis 25	
	BLIND FASTNERS.	
Francis.....	dis 20	
Mackrell's.....	\$1 doz pairs \$1.00, dis 10	
Van Sand's Screw Pattern.....	\$1 per gross, net	
Van Sand's Old Pattern, 1/4, \$8; 1/2, \$8.50 per gross, net		
Merriman's.....	new list, net	
Zimmerman's, 10 1/2 in.....	\$1 gross \$23.00	
Zimmerman's, 9 in.....	\$1 gross \$10.00	
	BLIND STAPLES.	
Barbed, 1/2 in. and larger.....	\$1 lb 11c net	
Barbed, 3/8 in.....	\$1 lb 13c net	
	BLOCKS.	
Bagnall & Loud.....	dis 30	
	BOLTS.	
Cast Iron Barbel Shutter, Sargent's list.....	dis 10&10/10	
Cast Iron Chain (Sargent's list).....	dis 60&10	
Wrought Jarrel.....	dis 55&10	
Wrought Square.....	dis 55&10	
Wrt. Shutter, all Iron, Stanley's list.....	dis 50&10	
Wrt. Shutter, Brass Knob, Stanley's list.....	dis 50&10	
Wrought Shutter, Sargent's list.....	dis 55&10	
Wrought Sunk Flush, Sargent's.....	dis 60&10	
Wrought Sunk Flush, Stanley's.....	dis 40&10	
Wrought B. K. Flush, Stanley's.....	dis 50&10	
Carriage and Tire, Common, new list.....	dis 75	
Carriage and Tire, Philadelphia Pattern.....	dis 50	
Carriage Bolts, Clarke's.....	dis 80	
Norway.....	dis 75	
R. B. & W. Carriage (old list).....	dis 65	
Tire, American Screw Co's, Phila.....	dis 82 1/2	
Tire, " Bay State".....	dis 70&10 new list	
East Philadelphia Tire Bolt.....	dis 82 1/2&10	
stove.....	dis 70	
Plow.....	dis 60&10	
Machine.....	dis 75	
Bolt Ends and Lag Screws.....	dis 75	
	BORAX.	
15c per lb net.		
	BRACES.	
Q. S. Backus.....	dis 50	
Barber's.....	dis 40&5	
Spooffard's Patent.....	dis 50	
Ive's Patent Braces.....	dis 50	
Common Ball (American).....	dis 55	
Amidon's.....	dis 50	
	BORING MACHINES—WITHOUT AUGERS.	
Sweet & Clark upright, 3.60 angular.....	\$4.00 net	
Lawrence " 3.00 "	\$3.50 net	
Hubbard " 3.00 "	\$3.00 net	
Phillips, with Augers.....	7.00 7.50 net	
	BRACKETS.	
Sheff, plain.....	dis 50&10	
Sheff, fancy.....	dis 55&10	

BRIGHT WIRE GOODS.	
New list.....	dis 70&10&10 \$
BULL RINGS.	dis 55 \$
Union Nut Co.....	dis 60&10 \$
Sargent's.....	dis 60&10 \$
Humason, Beckley & Co.'s. BUTTS.	dis 60&10 \$
Wrought Brass.....	dis 75 \$
Cast Brass, Fast Joint.....	dis 60&10 \$
Cast Brass, Loose Joint.....	dis 60&10 \$
Fast Joint, Narrow.....	dis 60&10 \$
Fast Joint, Broad.....	dis 60&10 \$
Loose Joint.....	dis 70&10 \$
Loose Joint, Japanned.....	dis 70&10 \$
Loose Joint, Jap, with Acorns.....	dis 70&10 \$
Parliament Butts.....	dis 70&10 \$
Mayer's Hinges.....	dis 70&10 \$
Loose Pin, no Acorn.....	dis 70&10 \$
Loose Pin, Acorns.....	dis 70&10 \$
Loose Pin, Acorns, Japanned.....	dis 70&10 \$
Loose Pin, Acorns, Jap'd, Plated.....	dis 70&10 \$
Tips.....	dis 70&10 \$
Wrought Iron.	
Fast Joint, Narrow.....	dis 60&10 \$
Fast Joint, Lt. Narrow.....	dis 60&10 \$
Fast Joint, Broad.....	dis 60&10 \$
Loose Joint, Broad.....	dis 60&10 \$
Table Butts, Back Flaps, &c.....	dis 60&10 \$
Inside Blind, Regular.....	dis 60&10 \$
Inside Blind, Light.....	dis 60&10 \$
Loose Pin, W't.....	dis 60&10 \$
Loose Pin, Light.....	dis 60&10 \$
Spring Hinges— Geer's Spring and Blank Butts.....	dis 25 %
Hart Manufacturing Co.....	dis 60&10 \$
American Spring Hinge Co.'s.....	dis 25 %
Gem Spring Hinges.....	dis 25 %
Blind Butts, Shepard's, Nos. 50 and 60.....	dis 70 \$
Blind Butts, Shepard's, No. 050.....	dis 70 \$
Blind Butts, Shepard's, No. 75.....	dis 70&10 \$
Blind Butts, Lull & Porter.....	dis 75 \$
Blind Butts, Huffer.....	dis 50 %
Blind Butts, Clark's, Nos. 1, 3, 5.....	dis 70&10 \$
Standard Lull & Porter.....	dis 75&10 \$
BOW PINS.	
Humason, Beckley & Co.'s.....	dis 55&5 %
Sargent & Co.'s.....	\$1.70 and \$1.40; dis 60&10 %
Hotchkiss.....	dis 25 %
BUTCHER'S CLEAVERS.	
Humason & Beckley Mfg. Co.....	dis 25 %
Bradley's.....	dis 25 %
Beatty's.....	dis 25&5 %
1 2 3 4 5 6 7 8 \$16.50 19.00 21.50 24.00 27.00 30.00 33.50 36.50	CAN OPENERS.
American.....	1 gross \$7.50, dis 10 %
New Idea.....	\$15.00 gross
No. 4, French.....	1 gross \$2.25, dis 55 %
No. 5, Iron Handle.....	1 gross \$1.50, dis 10 %
Sardine Scissors.....	1 gross \$7.00, dis 55 %
Sprague, No. 1, #2; No. 2, 2.25; No. 3, 2.50; nos. 50&10 %	
Universal.....	1 gross \$3.00, dis 33 %
CARS, PERCUSSION, 1,000.	
U. M. C., F. C. trimmed.....	50¢ dis 10&10 \$
U. M. C., F. L. ground.....	70¢ dis 10&10 \$
U. M. C., Cen. fire ground.....	70¢ dis 10&10 \$
G. D. & S. B......	33¢ dis 10 %
E. B. 1-10, Eley's.....	.60¢
Musket, in 10-10 s.....	.55¢
Hicks Ground Edge in Brass Boxes.....	.55¢
CARTRIDGES.	
Rim.....	dis 60 %
Central Fire, pistol fire.....	dis 40 %
" " Military.....	dis 25 %
B. B. Caps, Round Balls.....	1.60
" Swaged Conical.....	1.75
NEW LIST ON CARTRIDGES.	
Rim-fire, 22 short.....	\$ 5 long.....
" 32 "	10 "
" 38 "	18 "
" 41 "	15 "
Central Fire—39, \$11.00; 38, \$13.50; 41, 15.00; 44, \$19.	17.50
CARDS.	
Horse and Curry, new list, July, 1881.....	dis 10 %
Cotton, new list, July, 1881.....	dis 10 %
Wool, new list, July, 1881.....	dis 10 %
CARPET STRETCHERS.	
Cast Steel, Polished.....	10 doz \$5.00, dis 30 %
Cast Iron, Steel Points.....	10 doz \$6.00, dis 30 %
Bullard's.....	dis 25 %
CASTERS.	
Bed.....	dis 60 %
Plate and Shallow Socket.....	dis 60 %
Deep Socket.....	dis 25&10 %
Martin's Patent (Phoenix).....	dis 25 %
CATTLE LEADERS.	
Humason, Beckley & Co.'s.....	dis 60&10 %
Sargent's.....	dis 60&10 %
P. S. & W.....	dis 25&10 %
CHAIN.	
German Halter and coil Chain.....	dis 50&10 %
Trace, Breast and Fancy.....	dis 45&5 %
Oneida Halter Chain (old list).....	dis 45&5 %
Galvanized Pump Chain.....	10¢ dis 80 %
Jack Chain, Iron.....	dis 60&10 %
Jack Chain, Brass.....	dis 50&10 %
CHALK.	
White.....	1 gross 60¢ net
Red.....	1 gross 50¢ net
Blue.....	1 gross \$1.00 net
White Crayons.....	1 gross 90¢ net
COTTON LINES.	
Cotton Fish Lines.....	dis 33% %
Cotton Chalk Lines, 20 feet:	
Nos. 11, 13, 15, 17, 20,	dis 33% %
3.20, 3.60, 4.00, 4.50, 5.25,	dis 33% %
CLESSES.	
Socket Framing, Crossman.....	dis 65&5 %
Socket Framing, P. S. & W.....	dis 70&10 %
Socket Framing, Douglass'.....	dis 75 %
Socket Firmers, Crossman.....	dis 65&5 %
Socket Firmers, Ohio Tool Co.....	dis 60&10 %
Socket Firmers, Douglass'.....	dis 70&10 %
Tanged Firmers.....	dis 70&10 %
Tanged Firmers, Butcher's.....	dis 40&10 %
I. Merrill's Socket and Framing Chisel.....	55.00¢ to \$2.25 to £1.
CLAMPS.	
Iron, Screw, Eagle.....	dis 50 %
Iron, Adjustable, Stearns'.....	dis 60&10 %
Iron, Cabinet, Sargent's.....	dis 60&10 %
Iron, Carriage maker's, Carr & Crawley.....	dis 25 %
CLIPS, AXLE.	
Norway or Best.....	dis 60&5 %
Superior.....	dis 45&5 %
Conestoga.....	dis 60&10 %
Coal Hods—Griffiths'	dis 40 %
COCKS, BRASS.	
Racking, new list, July 10, 1880.....	dis 60&10 %
Globe, new list, July 10, 1880.....	dis 60&10 %
Plain Bibs, new list, July 10, 1880.....	dis 60&10 %
Ale and Beer, new list, July 10, 1880.....	dis 60&10 %
COFFEE MILLS.	
Parker's.....	dis 45 %
Wilson's.....	dis 40&10 %
Logan & Strobridge.....	dis 45 %
Enterprise Mfg. Co.....	dis 25 %
COMPASSES, DIVIDERS, &c.	
Compasses.....	dis 60&10 %
Calipers.....	dis 60&10 %
Dividers.....	dis 60&10 %
Cook's Pencils.....	dis 10 %
COOPERS TOOLS.	
Bradley's.....	dis 15&20 %
Barton's.....	dis 20 %
CROW BARS.	
Cast Steel.....	10¢ dis 6¢
Iron, Steel Points.....	10¢ dis 4¢
CURLING IRONS, &c.	
16, 54, 3/4 in., \$1.80, 2.00, 2.50.....	dis 10 %
Springing Tong.....	10 doz \$3.65, dis 10 %
Pinching Irons.....	10 doz \$7.50, dis 10 %
CURRY COMBS.	
Fitch's new list.....	dis 50 %
Hotchkiss, Novelty, new list, July, 1880.....	dis 25 %
Hotchkiss, Excelsior Superior Champion.....	dis 25 %
Lawrence, " Perfect".....	dis 25&10 %
Rubber.....	10 doz \$10.00, dis 25 %
Sweet & Clarke.....	dis 50 %
Lusters.....	dis 25 %
CURTAIN PINS.	
Silvered Glass.....	net
White Enamel.....	net
CUTLERY.	
Association (Table).....	net
Naugatuck Cutlery Co.....	list net
Excelsior Knife Co.....	net
Wilson's Butcher and Shoe Knives.....	dis 30 %
Amer's Shoe Knives.....	dis 15 %
Wm. Rogers Mfg. Co., Plated Cutlery.....	Net
DOG COLLARS.	
Embossed Gilt.....	dis 30 %
Leather.....	dis 25 %
Brass.....	dis 25 %
DOOR SPRINGS.	
Terry's Rod, regular size, 10 doz, \$3.....	dis 40&10 %
Gem (Coil):	
No. 1, Large Japanned.....	10 doz \$4.00
No. 2, Medium Japanned.....	10 doz \$2.75
No. 3, Small Japanned.....	10 doz \$2.00
No. 4, ("Shoo Fly") Screen door size, 1.50.....	dis 40 %
No. 5, Screen door size.....	2.00
No. 6, Medium.....	2.75
No. 7, Large.....	4.00
Standard—10 doz \$1.25; 9 doz \$1.75.....	dis 60&10 %
8 doz \$1.50; 6 doz \$3.50.....	dis 60&10 %
Hercules.....	dis 50&10 %
DRAWING KNIVES.	
Ohio Tool Co.....	dis 60&10 %
Crossman's No. 1.....	dis 65&5 %
Nobles Mfg. Co.....	dis 15 %
Bradley's.....	dis 35 %
Adjustable Handle.....	dis 20 %
P. S. & W.....	dis 20&10 %
Douglas.....	dis 75 %
DRILLS AND DRILL STOCKS.	
Blacksmiths.....	each, 50¢, dis 10 %
Blacksmiths' Self-Feeding.....	each, 7.50, dis 10 %
Breast, P. S. & W.....	dis 20&10 %
Breast, Wilson's.....	dis 20 %
Breast, Millers Falls.....	each, \$3.00, dis 25 %
Breast, Bartholomew's.....	each, \$2.50, dis 25&10 %
Wilson's Drill Stocks.....	dis 10 %
Automatic Boring Tools.....	each, \$2.25, dis 20 %
EGG BEATERS.	
Dover.....	10 doz \$2.50, dis 2 %
Medallion.....	gross \$10.00
Victoria.....	gross \$10.00
EMERY AND EMERY PAPER.	
Regular numbers.....	1 lb 6¢
Flour and F. F.....	1 lb 4¢
B. & A. Emery Paper.....	dis 30&5 %
ENAMELED AND TINNED WARE.	
Kettles.....	dis 60&10 %
Sauce Pans.....	dis 45 %
Tinned Sauce Pans.....	dis 45 %
Escutcheon Pins—BRASS.	dis 50 %
ESCUCHONIENS.	
Door Lock.....	Same discounts as Door Locks
Brass Thread.....	dis 25 %
Wood.....	dis 25 %
FAUCETS.	
Fenn's.....	dis 40 %
Fenn's Cork Stops.....	dis 33% %
Star.....	dis 50&10 %
Frary's Patent Petroleum.....	dis 20&10 %
West's Patent Key.....	dis 45 %
Anchor Lock.....	dis 45 %
Metallic Key, Leather Lined.....	dis 60 %
Cork Lined.....	dis 70 %
J. Sommer's Best Metallic Key.....	dis 40 %
J. Sommer's Cork Lined, 1st quality.....	dis 50 %
FILEE.	
E. M. Boynton's.....	new list, dis 25 %
Western File Co.....	dis 45 %
Butcher's.....	dis 45 %
Moss & Gamble.....	dis 40 to 50 %
H. Diston & Sons (new list).....	dis 40 %
Heller Bros. Horse Rasp.....	dis 60&10 %
Nicholson.....	dis 50 %
New American.....	dis 50 %
Union File Co.....	dis 45 %
Stub, new list.....	37.50 to £1, 25 % off
FLUTTING MACHINES.	
Knox, 1/2-inch Rolls.....	83.50 each
Knox, 6-inch Rolls.....	34.00 each
FRY PANS.	
Burnished list as follows:	dis 60&10 %
No. 1.....	dis 50 %
No. 2.....	dis 55 %
No. 3.....	dis 55 %
No. 4.....	dis 55 %
No. 5.....	dis 55 %
No. 6.....	dis 55 %
No. 7.....	dis 55 %
No. 8.....	dis 55 %
GAUGES.	
Marking, Stanley's.....	dis 50&10 %
Marking, Chapin's.....	dis 55&10 %
Wire.....	dis 10&10 %
Wire, Disston's.....	dis 50 %
Wire, Wheeler, Maiden & Co.....	dis 10 %
GIMLETTS.	
Nail and Spike.....	dis 40 %
"Eureka" Gimlets.....	dis 50 %
"Diamond" Gimlets.....	dis 50 %
Double Cut, Shepardson's.....	dis 50 %
Double Cut, Hartwell's.....	dis 50 %
Double Cut, Ives'.....	dis 50 %
Double Cut, Douglass'.....	dis 33% %
"Reel".....	10 gross \$12.00, dis 25 %
GLUE POTS.	
Tinned and Enamelled.....	dis 40 %
Family, Howe's "Eureka".....	dis 25 %
Family, L. F. & C.'s "Handy".....	dis 30 %
GRINDSTONE FIXTURES.	
Sargent's Patent.....	dis 70&10 %
Reading Hardware Co.....	dis 55&10 %
GUN WADES.	
Eley's B. E. wads, 11 upwards.....	1.75
" " " 9 and 10.....	2.00
" " " 7 " 8.....	2.25
P. E. " " 11 upwards.....	2.50
" " " 9 and 10.....	3.00
" " " 7 " 8.....	4.45
HAMMERS.	
Maydole's.....	dis 15 %
Hartford Hammer Co.....	dis 25 %
HARDWARE.	
Bright Wire Goods.....	dis 70&10 %
Base—Common.....	dis 30&10 %
Hemacite Door Knobs.....	new list, dis 35&5 %
Door Mineral.....	
Door Por. Jap'd.....	Same discounts as Door Locks
Door Por. Plated.....	
Furniture Plain.....	75¢ gross inch, dis 10 %
Furniture, Wood Screws.....	dis 50&10 %
Picture.....	dis 50&10 %
Hemacite Picture.....	dis 35 %
Shutter, Porcelain.....	dis 50&10 %
HANDLES.	
Magnic's Tack, Nos. 1, 2, 3, 1.25, 1.50 and 1.75.....	dis 35 %
Warner & Noble's.....	dis 55 %
Kip's or Selvor's.....	dis 30 %
Perker & Plumb.....	dis 15 %
HANDLE.—Door or Thumb Latches.	
Nos. 0.....	dis 3 %
Per doz.....	dis 3 %
Per doz.....	dis 3 %
Roggins' Latches.....	dis 35 %
Bronze Iron Drop Latches.....	dis 30 %
Jap'd Store Door Handles—Nuts, \$1.35; Plate,.....	dis 30 %
no Plate, \$1.10.....	dis 30 %
Barn Door.....	dis 30 %
Wrought Chest.....	dis 65&10 %
Surface Chest.....	dis 55&10 %
Flush Chest.....	dis 55&10 %
Lifting.....	dis 60&10 %
Scan and Plane.....	dis 40&10 %
Lippincott Cross-Cut Saw.....	35¢, per pair
Hammer and Hatchet.....	dis 20 %
Brad Awl.....	dis 10 %
Chisel, all kinds.....	dis 10 %
Auger, assorted, 10 gross.....	dis 45 %
Auger, large, 10 gross.....	5.00
Patent Auger, Ives'.....	dis 25 %
Patent Auger, Douglass'.....	10 set \$1.25 net
Patent Auger, Swan's.....	10 set 1.00 net
HAMMOCK CHAIRS.	
White Mountain, per dor.....	dis 36.00
Finished in red, per dor.....	dis 34.00
HANGERS.	
Barn Door, old patterns.....	dis 60&10 %
Barn Door, New England.....	dis 60&10 %
Climax (Anti-Friction).....	dis 50 %
Warner's.....	dis 30 %
Richard's.....	dis 20 %
HATCHETS.	
Underhill's.....	35 %
Haines' Solid Steel.....	30 %
Shingling, Nos. 1 to 3.....	10 doz \$7.25 \$10.00 dis 35 %
Claw, Nos. 1 to 3.....	10 doz 7.75 \$8.50 dis 35 %
Lathing, Nos. 1 to 3.....	10 doz 7.50 \$8.00 dis 35 %
Hammond's new list.....	dis 45 %
Blood's.....	dis 35 %
Hunt's.....	dis 35 %
Russell's, low list.....	dis 40 %
HATCHES.	
"Lightning".....	10 set \$60.00 net 5 %
Wadsworth's.....	10 set 30 %
HINGES.	
Plate Hinges, 1 1/2, 10&12 in.....	5¢, per lb.
" Providence" 1 over 12.....	4¢, per lb.
Screw Hook 8, 10, 12 in.....	4¢, per lb.
and Strap, 14 to 36 in.....	4¢, per lb.
C. B. 1.....	3¢, per lb.
Crown spring hinges, for screen doors, dis 5 %; for solid doors, single action, dis 45 %; for solid doors, double action, dis 55 %	
Crown Screen Door Latch.....	10 gross \$18.00 dis 55 %
Crown Christmas Tree Holders, 2-inch, 10 in.....	10 gross \$18.00 dis 55 %
doz 3-in. \$1.25.....	dis 45 %
Bickford Portable Pump.....	each, \$6.00 dis 30 %
American Cake Mixer, No. 6.....	each \$3.50, dis 30 %
American Tobacco Cutter.....	10 doz \$15.00, dis 30 %
A. M. C. O. Clothes Wringer, No. 2, 10 x 14, 10 x 16, 10 x 18, 10 x 20, 10 x 22, 10 x 24, 10 x 26, 10 x 28, 10 x 30, 10 x 32, 10 x 34, 10 x 36, 10 x 38, 10 x 40, 10 x 42, 10 x 44, 10 x 46, 10 x 48, 10 x 50, 10 x 52, 10 x 54, 10 x 56, 10 x 58, 10 x 60, 10 x 62, 10 x 64, 10 x 66, 10 x 68, 10 x 70, 10 x 72, 10 x 74, 10 x 76, 10 x 78, 10 x 80, 10 x 82, 10 x 84, 10 x 86, 10 x 88, 10 x 90, 10 x 92, 10 x 94, 10 x 96, 10 x 98, 10 x 100, 10 x 102, 10 x 104, 10 x 106, 10 x 108, 10 x 110, 10 x 112, 10 x 114, 10 x 116, 10 x 118, 10 x 120, 10 x 122, 10 x 124, 10 x 126, 10 x 128, 10 x 130, 10 x 132, 10 x 134, 10 x 136, 10 x 138, 10 x 140, 10 x 142, 10 x 144, 10 x 146, 10 x 148, 10 x 150, 10 x 152, 10 x 154, 10 x 156, 10 x 158, 10 x 160, 10 x 162, 10 x 164, 10 x 166, 10 x 168, 10 x 170, 10 x 172, 10 x 174, 10 x 176, 10 x 178, 10 x 180, 10 x 182, 10 x 184, 10 x 186, 10 x 188, 10 x 190, 10 x 192, 10 x 194, 10 x 196, 10 x 198, 10 x 200, 10 x 202, 10 x 204, 10 x 206, 10 x 208, 10 x 210, 10 x 212, 10 x 214, 10 x 216, 10 x 218, 10 x 220, 10 x 222, 10 x 224, 10 x 226, 10 x 228, 10 x 230, 10 x 232, 10 x 234, 10 x 236, 10 x 238, 10 x 240, 10 x 242, 10 x 244, 10 x 246, 10 x 248, 10 x 250, 10 x 252, 10 x 254, 10 x 256, 10 x 258, 10 x 260, 10 x 262, 10 x 264, 10 x 266, 10 x 268, 10 x 270, 10 x 272, 10 x 274, 10 x 276, 10 x 278, 10 x 280, 10 x 282, 10 x 284, 10 x 286, 10 x 288, 10 x 290, 10 x 292, 10 x 294, 10 x 296, 10 x 298, 10 x 300	

LAWN MOWERS.	
Acme Buckeye, Easy and Excelsior, new list..dis 40 \$	
Linen Fish.....dis 25&10%	
Wire Clothes, Galvanized, 100 feet.....P doz \$3.00	
LOCKSMAN LATCHES.	
Cabinet, Eagle.....Changes made in list price	
Cabinet, Gaylord.....of some numbers Jan. 1,	
Cabinet, Bridgeport.....1881, dis 25&2% \$	
Cabinet, P. & F. Corbin.....dis 15&2%	
Trunk, new list, Jan. 1, 1881.....dis 15&2%	
Yale Lock Co., Flat Key.....dis 40 \$	
Plate.....dis 33&2% \$	
DOOR LOCKS, ETC.	
Bradford.....List prices as revised	
Norwalk.....Dec. 10th, 66&2% for cash.	
Norwich.....	
P. & F. Corbin.....	
Russell & Erwin.....	
Mallory, Wheeler & Co.....	
Padlocks—Russell & Erwin.....	
Mallory, Wheeler & Co.....dis 66&3% \$	
Norwich Lock Manf. Co.....and 5% for cash.	
Wm. Wilcox & Co.....	
Wm. Wilcox & Co.'s Plate Locks.....dis 33&1% \$	
Yale Lock Manf. Co.'s "Standard".	
Romer's.....dis 25@40%	
Conestoga.....dis 80 & 10%	
Scandinavian, "Norwich".	
MALLETS.	
Penfield Block Co., Apple, Hickory and	
Lignumvitæ.....dis 30 \$	
MEAT CUTTERS.	
Dixon's (P. S. & W.) Nos. 1 2 3 4.	
Perry's, Nos. 1 2 3 4 4 gr'd	
Each.....\$3. 9 11 13 36 dis	
Woodruff's (P. S. & W.) Nos. 100 150	
P doz. \$15. 18-dis 35%	
Hale's.....Nos. 11 12 13	
P doz. \$7. 35-dis 50&10&2%	
Kieser's No. 55.....\$40. P doz dis 40%	
Kieser's Gem.....\$25. P doz dis 40%	
Kieser's No. 82.....\$40. P doz dis 40%	
Kieser's Monarch.....\$45. P doz dis 40%	
Beef Shaver, (Enterprise Manf. Co.).	
ENTERPRISE GATES.	
Stebbing Patterns.....dis 20&10%	
Stebbing Genuine.....dis 67&2% to 10%	
Stebbing Tinned Ends.....dis 40&10%	
Chase's Hard Metal.....dis 50&10%	
Self-Measuring, (Enterprise). Lincoln's Pattern.....dis 20%	
Weed's.....dis 15 %	
Boss Nos. 1 2 3 4	
Boss, Japanned Finish.....dis 60&10&10%	
Bronze Finish.....dis 50&10&10%	
NUTS AND WASHERS.	
Square Nuts.....8 c off list.	
Hexagon Nuts.....8½ c off list.	
Washers.....7½ c off list.	
OILERS.	
Zinc and Tin.....dis 60&10%	
Brass and Copper.....dis 50 %	
Malleable (Hammer's). PINKING IRONS.	
Per dozen.....75 cts. net	
PLAIDING MACHINES.	
Astor Plaiting Machine.....each \$15, dis 20%	
Crown Plaiting Machines.....dis 25 %	
6 in., \$6; 10 in., \$8 each.	
PLANES AND PLANK IRONS.	
Bench, First Quality.....dis 20 %	
Bench, Second Quality.....dis 25 %	
Molding.....dis 15 %	
Bailey's (Stanley R. & L. Co.) New list, Jan. 1879.	
The Stanley (S. R. & L. Co.) new list, January 1879.	
Bailey's.....dis 20&10%	
Plane Irons, Butcher's.....dis 20&10%	
Plane Irons, Auburn Tool Co.....dis 20 %	
Plane Irons, Sardusky Tool Co.....dis 20 %	
PLIERS AND NIPPERs.	
Button's Patent.....dis 33&1% \$	
Hall's Pat, Compound Lever Cutting Nippers, No. 2, 5 in. \$13.50; No. 4, 7 in. \$21 P doz, dis 25 %	
Gas Pliers.....dis 50 %	
PLUMBERS AND LEVELS.	
Dission's.....dis 40 %	
Stanley R. & L. Co.'s Pat, Adjustable.....dis 65&10%	
Stanley R. & L. Co.'s Non-Adjustable.....dis 65&10%	
Chapin's Patent Adjustable.....dis 65&10%	
Chapin's Non-Adjustable.....dis 65&10%	
Standard Rule Co.'s New Adjustable.....dis 65&10%	
Standard Rule Co.'s Non-Adjustable.....dis 65&10%	
Pocket Levels.....dis 65&10%	
RAIL.	
Sliding Door, Wrought Brass.....P lb. 430, dis 30 %	
Sliding Door, Bronzed Wt. Iron.....P ft. 120, dis 35 %	
Sliding Door, Iron, Painted.....P ft. 40, dis 10&10 %	
Horn Door....inch.....½ ¾ ½ ¾	
Per 100 feet. \$2.60 3.60 5.60-dis 10 %	
B. D. for N. E. Hangers—	
Small. Med. Large. Per 100 feet.....\$2.10 2.70 .30 net.	
RIVETS.	
Iron and Tinned, new list, Dec. 10, 1881.....dis 50 %	
In bulk, new list, Dec. 10, 1881.....dis 40 %	
Copper Rivets and Burrs.....dis 50&10%	
Nos. 7 8 9 10 11 12 13 14 15 P lb. 49c. 50c. 52c. 54c. 56c. 60c. 62c. 70c.	
RIVET SETS.	
Stair, Brass.....dis 25 %	
Stair, Black Walnut.....60c. P doz.—net	
RULES.	
Boxwood. Ivory.	
Chapin's.....dis 80 %	
Standard.....dis 40&10%	
Stanley.....dis 70&10%. Ivory.....dis 50 %	
Stevens & Co. Miscellaneous.....dis 50&10%	
SAD IRONS.	
Self-Heating, Charcoal.....P doz 9.00 net	
Mrs. Pott's Irons.....dis 35 %	
Enterprise Star Irons, new list, July 20, '82...dis 35 %	
Comb'd Fluter and Sad Iron.....P doz \$15.00, dis 15 %	
Common Sad Irons.....2½c P lb.	
SAND PAPER.	
Baeder & Adamson's Flint, 00@1½ \$.44.50 P r'm.	
Baeder & Adamson's Flint, 2 ½ & 3. 5.00 P r'm.	
Baeder & Adamson's Flint, Assort'd 4.75 P r'm.	
Baeder & Adamson's Star.....3.75 P r'm.	
Baeder & Adamson's Emery P r'm. \$6.50@11.50	
J. Bartle's Sand, Flint and Emery Paper ..dis 30cts \$	
SASH CORD.	
Common.....P lb. 14c. net	
Patent.....P lb. 17c@18c. net	
Silver Braided Lake Hemp.....P lb. 50c. dis 10 %	
Silver Braided Lake White Cotton, P lb. 50c. dis 10 %	
Silver Braided Lake Drab Cotton, P lb. 50c. dis 10 %	
Silver Lake Cable Laid, Bengall Unbleached Hemp, 17 cts.....dis 10 %	
Russian Hemp, 10 cts.....dis 10 %	
Italian Hemp, 34 cts.....dis 10 %	
Samson Braided, white cotton.....dis 50&10%	
drab cotton.....dis 55 %	
SASH WEIGHTS.	
Solid Eyes, in 500-lb. lots and over, P lb. 1¼c. net	
SAUSAGE STUFFERS OR FILLERS.	
Miles.....P doz. \$20, dis 25&5 %	
Perry.....P doz., No. 15; No. 0, \$21....dis 35 %	
Enterprise Mfg. Co.....dis 25 %	
Monarch.....dis 40 %	
SAWS.	
Boynton's Lightning Cross Cuts, new list.....dis 40 %	
Boynton's Circular and Mill.....dis 40 %	
Boynton's Ice.....dis 25 %	
Boynton's Lightning Hand, Panel and Rip.....dis 25 %	
Dissont's Circular.....dis 40 %	
Dissont's Mill.....dis 40 %	
Dissont's Cross Cut.....dis 40 %	
Dissont's Hand, Panel, Rip, &c.....dis 20 %	
Hubbard, Bakewell & Co. Circular Saws.....dis 40 %	
Hubbard, Bakewell & Co. Cross Cut.....dis 40 %	
Hubbard, Bakewell & Co., One-Man's, X Cut	
Hubbard, Bakewell & Co., Mill Saws.....dis 40 %	
Peace Circular and Mill.....dis 40 %	
Peace Hand, Panel and Rip.....dis 25 %	
Peace Band Saws, all widths.....dis 10 %	
Webster Cross Cut, with handles.....dis 25&10% \$	
Griffin's Hack Saws and Blades.....dis 30 %	
SAW FRAMES.	
Stillman's Genuine, P doz \$3.50 and \$5.00....dis 10 %	
Stillman's Imitation.....P doz \$3.25, dis 30&10 %	
Common Lever.....P doz \$3.25, dis 30&10 %	
Leach's.....No. 0, \$3.00; No. 1, \$15; dis 15 %	
Hammer, Hotchkiss.....\$5.50, dis 10 %	
Aiken's Genuine.....\$13.00, dis 50 %	
Aiken's Imitation.....\$7.00, dis 50 %	
Dissont's.....No. 1, \$15; No. 5, \$50; dis 38&10 %	
SCALES.	
Stillman's Genuine, P doz \$3.50 and \$5.00....dis 10 %	
Stillman's Imitation.....P doz \$3.25, dis 30&10 %	
Common Lever.....P doz \$3.25, dis 30&10 %	
Leach's.....No. 0, \$3.00; No. 1, \$15; dis 15 %	
Hammer, Hotchkiss.....\$5.50, dis 10 %	
Aiken's Genuine.....\$13.00, dis 50 %	
Aiken's Imitation.....\$7.00, dis 50 %	
Dissont's.....No. 1, \$15; No. 5, \$50; dis 38&10 %	
SCAFTS.	
Stillman's Genuine, P doz \$3.50 and \$5.00....dis 10 %	
Stillman's Imitation.....P doz \$3.25, dis 30&10 %	
Common Lever.....P doz \$3.25, dis 30&10 %	
Leach's.....No. 0, \$3.00; No. 1, \$15; dis 15 %	
Hammer, Hotchkiss.....\$5.50, dis 10 %	
Aiken's Genuine.....\$13.00, dis 50 %	
Aiken's Imitation.....\$7.00, dis 50 %	
Dissont's.....No. 1, \$15; No. 5, \$50; dis 38&10 %	
SCRAPEs.	
Adjust. Box Scraper (S. R. & L Co.) \$6.50, dis 20&10 %	
Box, 1 Handle.....P doz \$4, dis 10 %	
Box, 2 Handle.....P doz \$6, dis 10 %	
Foot.....dis 45&10 %	
Ship, common.....P doz \$3, net	
Wilson Mfg. Co.....dis 25 %	
SCREW DRIVERS.	
Douglas Mfg. Co.....dis 20&10 %	
Dissont's.....dis 40 %	
Cowles Mfg. Co.....dis 50&12% \$	
Stanley Rule & Level Co.'s Var. Hds.....dis 50&10 %	
Stanley Rule & Level Co.'s Black Hds.....dis 40&10 %	
Ratchet.....dis 33&2%	
Clark's Patent.....dis 25 %	
Shepardson.....dis 25 %	
SCREWs.	
Flat Head Iron, A. S. Co.'s list, Jan. 1, '85....dis 80 %	
Round Head Iron.....dis 75&16 %	
Flat Head Brass.....dis 45&10 %	
Round Head Brass.....dis 75 %	
Flat Head Blued, add ½ % to net of invoice.	
Brass and Silver Capped.....dis 40 %	
Japanned, list of Plain Screws.....dis 72½ %	
Coach, Patent Gimlet Point.....dis 75 %	
Clark, Common or Lag.....dis 60&10&10 %	
Bed	



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ATLANTA.—Wanted party with \$3,000 to \$5,000 to join practical man in starting soap factory in this growing city; one who can sell goods and manage outside business. This is a fine opening. Address L. E. Boswell, Atlanta, Ga.

PARTNER WANTED to take an interest in a profitable manufacturing business in Middle Georgia. To a man with \$5,000 or more seeking investment and employment or investment alone, this is a fine opportunity. Address F. S. C., Macon, Ga.

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TO SOAP MANUFACTURERS.—The location of a soap manufacturer is desired in a live and growing Southern city of 10,000 inhabitants, situated at the junction of two trunk lines of railroad, in the best section of the South, entirely free from malaria or epidemics. To a thoroughly practical man competent to manage the business and able to furnish half the capital required for a respectable establishment, inducements will be offered. Address Oil Mill, care MANUFACTURERS' RECORD, Baltimore, Md.

WANTED.—By a lad, an opportunity in the South to learn the machinist's trade. Address Trade, care MANUFACTURERS' RECORD.

WANTED.—A party with \$3,000 to \$5,000 capital and a knowledge of manufacturing agricultural implements; business already established; one of the best locations; a good chance for a safe and profitable investment; the machines are covered by five patents, and well tested by 3 years actual use, and an increasing demand. Investigation solicited. For particulars, address A. C. Hendricks, Shenandoah Junction, W. Va.

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WANTED.—By young man, situation as assistant draughtsman with machine shop, mechanical engineer, mechanical draughtsman, or patent solicitor. Graduate of scientific school. Machine shop and engineering experience. Address A. W. Chase, No. 76 Washington street, Providence, R. I.

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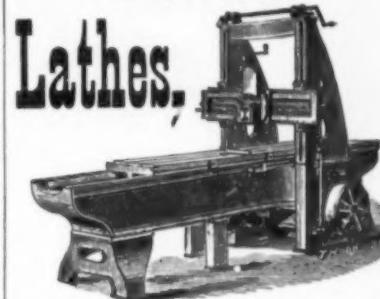
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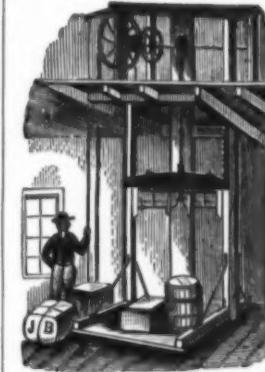
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A WEEKLY PAPER.

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Below are a few extracts from recent issues of Southern papers, showing the estimation in which the MANUFACTURERS' RECORD is held by those best capable of judging of the value of its work:

THE BALTIMORE MANUFACTURERS' RECORD has been doing a valuable work for the South in making a specialty of reporting Southern progress. No paper in the Union has more entitled itself to Southern gratitude than this enterprising and reliable journal. The RECORD has come to be a standard of authority in the matter of Southern advancement. Its labor has been remarkable in this work, and its care and accuracy phenomenal. As it has progressed in popular esteem, a few have endeavored to discredit its work. But all attempts have simply riveted it more strongly in public esteem. The recent publication in its issue of April 11th, of the development of the industrial interests of the South, has attracted general attention. The fine aggregate of \$20,591,000 of new capital invested in manufacturing is given. The figures, if possible, fall short of the mark, rather than overstate it. In getting up this valuable and accurate information, the editors of the RECORD underwent the enormous trouble of writing between 1,500 and 2,000 letters and postal cards. No journal has done more to bring Southern resources to Northern observation. Let our Southern press uphold the RECORD in its good labor. It has conferred an incalculable benefit upon our section.—*Commercial Chronicle and Constitutionalist*, Augusta, Ga.

Is doing a wonderful work for the South.—*Owensboro (Ky.) Messenger*.

The leading journal of its class in this country.—*Fulton (Md.) Whig*.

OUR leading manufacturing organ of the South.—*Beaumont (Tex.) Enterprise*.

THE BALTIMORE MANUFACTURERS' RECORD is almost a real necessity to every live Southern manufacturer and would prove of value to every intelligent Southern man. It is devoted exclusively to the industrial development of the South, but is the most complete and reliable paper of the kind published anywhere. It is the only technical journal of which we know that, without being what is known by the stereotyped adjective "popular," is of real interest to the general reader.—*Shelby, N. C., New Era*.

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No more welcome journal, or one whose columns we take more pleasure in scanning, finds its way to our office than the MANUFACTURERS' RECORD, of Baltimore. * * * We would be gratified if some of our residents would read it long enough to become imbued with the spirit of progress its columns unfold, and then put the lessons they learn to practical use in our midst.—*Herald, Claremont, Va.*

No journal published in this country that shows more real interest in the development of the South in all its industries. It is always welcomed in our sanctum as the champion of Southern enterprise, and we find it is extensively quoted and more highly commended by the Southern press than any other trade paper in the Union.—*Citizen, Canton, Miss.*

PUBLISHED every week probably more information relative to Southern manufacturing, mining and railroad affairs than can be gathered from any other single source. It has in many ways contributed largely to the material development of the South, and deserves a wide circulation throughout the Southern States.—*Charleston, S. C., News and Courier*.

Has closely and faithfully chronicled Southern industrial progress, and devotes itself with commendable zeal to the development of all the material resources of our section. It deserves the liberal encouragement of our people.—*Roanoke (Va.) Leader*.

Its editors have discernment enough to see that there is a bigger boom in store for this section than has yet been forecast, and it has labored zealously in aiding to unfold its resources.—*Daily Review, Wilmington, N. C.*

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" 1 Dash, "	13	
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Business Improvement.

There is at present writing every evidence of business improvement. Machinery business is never the first to feel the reaction after dull times, hence improvement is scarcely, in many instances not at all, felt in this branch. But it is clearly seen in textile and other industries, and has been felt long enough to warrant the assumption that it is not a mere spasmodic effect. It is impossible that business shall materially improve in a few of its branches without affecting the other branches. The gain will undoubtedly be slow, so slow as not to be noticeable from week to week. No one will be wise who expects a boom this fall or winter, but unless all ordinary signs fail, an era of better times has begun. The period of depression has taught men caution, so happily the rush of business beyond the bounds of any hopes of permanency is not under any circumstances probable. It will be infinitely better for the country that the increase be slow and sure than that it come with a rush to leave a calm behind it. But while cautious, it is plainly evident that there is everywhere increased confidence, which of itself will have a good effect in helping to restore business to a healthy condition. In the iron business we note that in some instances the wages of workmen have been increased, and that in this as in nearly all other lines the inclination towards further reduction has almost entirely ceased. This is a most encouraging sign, as with better wages, or reasonable evidence that further reductions are not impending, the great army of workingmen, whose ability and willingness to purchase has a greater influence on general business than any other single condition, will buy more freely, and so assist in removing the brakes from the wheels of trade. There are in the iron trade industries, more inquirers; there is a fair prospect for business in steel rails, and most of the pipe mills are busy. Last, but of the first importance, the promise of good crops insures such a distribution of money as will spread the means of purchasing over all parts of the country. Let everyone take heart from the encouraging signs; if everyone goes to work as if the worst was over, we trust and believe that it will be found to be so.—American Machinist.

The Fastest Tunnel Driving on Record.

The fastest driving done yet on the New York aqueduct was accomplished during month ended August 15, at shaft 20, section B, under supervision of Messrs. Collins & Farwell and Foreman McLaughlin. In July the contractors, Messrs. O'Brien & Clark, issued the following notice, naming a prize, which was won by men of the above-named shaft. Machinery used, Rand "Sluggers" Drill and Rand Air Compressors:

YONKERS, N. Y., July 6, 1885.

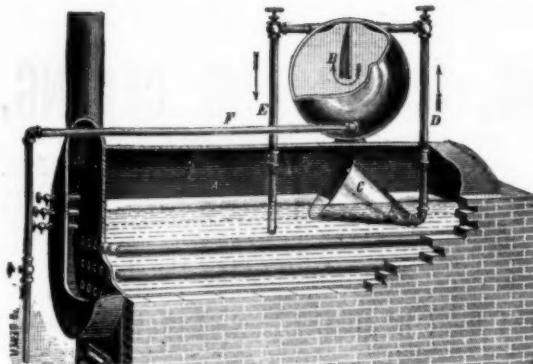
We have concluded to offer the foremen in charge of the tunnel on our work premiums of \$300 to the gangs making the fastest record for the month commencing July 15, 1885, and ending August 15, 1885, as follows, viz: \$200 first premium, \$100 second premium. The manner of deciding the greatest progress will be as follows: As near as possible uniform run be made of both bench and heading. Should the bench exceed the heading, then four feet of heading will count three feet of heading. In case the large timber sections are required, then the number of yards will be compared against the small sections, as above indicated.

The foremen winning the premiums will be at liberty to distribute them as they may see fit among their workmen. The record will be kept by J. Breuchaud and W. W. Hegeman.

O'BRIEN & CLARK.

The 24 miners who worked the north tunnel of shaft No. 20, in gangs of 12 men at a time, drilled and cleared 254 feet of heading, 8 feet high and 8 feet across the base, in the month named. It is said to be the fastest piece of mining work ever accomplished.—Financial and Mining Record.

FIRE

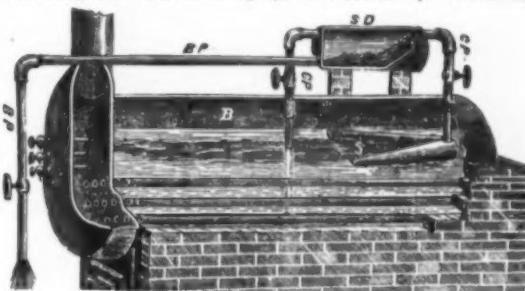


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Compare this cut with one on left, and see if identical; the only difference being in shape of Skimmer and Drum.

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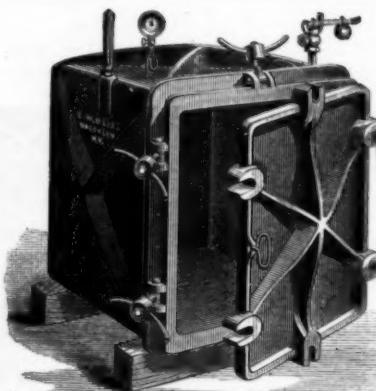
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The WARNER PURIFIER AND HEATER is the only machine which precipitates all impurities held in suspension, heats the water to the boiling point under full boiler pressure, separates and precipitates the mineral salts held in solution before the water reaches the boiler, and then injects the water thus purified into the boiler *boiling hot*. It is an automatic machine, entirely outside of the boiler, requiring absolutely no attention from the engineer except to blow off the accumulation of deposit from the bottom of the machine which acts as a mid-drum. All this is accomplished without the use of chemicals, by a purely mechanical process, regulated by the principles of natural philosophy.

No more "shutting down" of work to clean boilers—the machine does it all every day without interfering with the work, and by removing scale and preventing its formation, and heating the water to the boiling point saves a large percentage of fuel.

The WARNER HEATER AND PURIFIER COMPANY is now ready to furnish these machines on demand at very reasonable figures.

WASHINGTON, D. C., May 23, 1885.

This is to certify that I have made a careful examination of "Warner's Combined Purifier and Heater of Feed Water" in practical operation at the "Harris House" and "Post Building," in this city, and do not hesitate to pronounce it the *best* machine for the purpose ever invented. By its use the water goes into the boiler free from all impurities and heated to the boiling point under full boiler pressure, and as the result of the injection of pure water, the boiler is freed from scale and *kept clean*, while a large saving is made in fuel by the removal of the scale and heating the water to the boiling point before it enters the boiler. By the use of this machine the necessity of "shutting down" in order to blow out and clean the boiler is wholly obviated, as the impurities are all collected in the bottom of the machine, which can be blown out as many times a day as the engineer thinks proper without interfering with the workings of the boiler. I confidently commend this machine to all persons who own or use steam boilers, and am satisfied that its use will prolong the life of the boiler and make a handsome saving in the use of fuel. Very respectfully,

(Signed) JOHN H. WILKERSON.

Inspector of Steam Boilers for District of Columbia, 220 7th Street, S. E.

"HARRIS HOUSE," COR. PENNSYLVANIA AVENUE AND E STREET, N. W.

WASHINGTON, D. C., June 23, 1885.

This is to certify that one of "Warner's Purifiers and Heaters of Feed Water" has been in use on one of the boilers of the Harris House, in this city, for three months, and has proved a perfect success. The boiler upon which the machine was placed was at the time covered with a heavy scale composed of animal and vegetable matter, lime, &c., which, by the use of this machine, has been entirely removed, the boiler being now as clean as when it came from the boiler-maker. This has been entirely accomplished, without the use of chemicals, by the injection of pure water through the "Purifier and Heater." This machine injects the water into the boiler heated to the boiling point under full boiler pressure, and by this means, together with the removal of the scale, results in a large saving of fuel. It is also invaluable in the purification of the water for laundry purposes. The machine is self-acting, and prevents the necessity of "shutting down" in order to blow out the boiler, as the impurities are all concentrated in the bottom of the machine, and can be blown out through the machine as often during the day as the engineer may deem advisable without interfering with the working of the boiler. I am convinced that its use will prolong the life of all boilers upon which it may be placed, save a large percentage of fuel, decrease the danger of explosion, purify the water for all purposes, and give general satisfaction. I confidently commend it to all hotels using steam and to owners of steam boilers generally as a much needed improvement that will do the work claimed for it thoroughly.

(Signed) JOHN H. HARRIS, Proprietor of Harris House, Washington, D. C.

WASHINGTON "POST" BUILDING, WASHINGTON, D. C., June 23, 1885.

This is to certify that one of "Warner's Purifiers and Heaters of Feed Water" was placed upon the boiler of the Post Building about 60 days ago as a test. At that time the boiler was covered with a heavy scale of animal and vegetable matter, lime, &c., which it was impossible to prevent. By the use of this Purifier and Heater, which injects the water into the boiler free from all impurities and heated to the boiling point, the scale has been removed and the consumption of coal reduced. The machine works itself and is invaluable as a purifier of water to all branches of business requiring pure water, such as hotels, laundries, &c., and a much needed adjunct to all steam boilers, prolonging their life, decreasing the danger of explosion and effecting a large reduction in the consumption of fuel. I confidently commend Warner's Purifier and Heater to all owners of steam boilers, being confident that their interests will be subserved by its use.

(Signed) J. FRANK MC GUIRE, Superintendent and Engineer Post Building.

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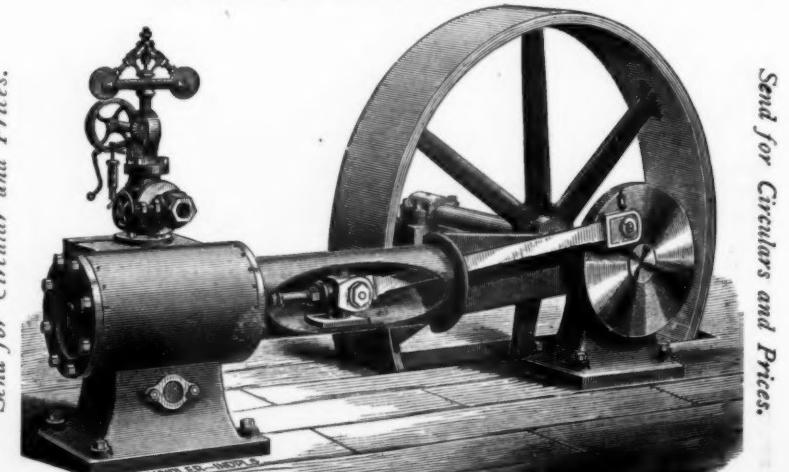
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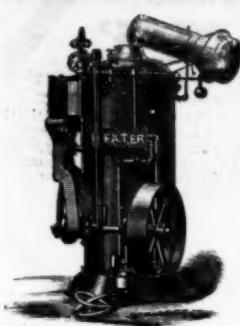
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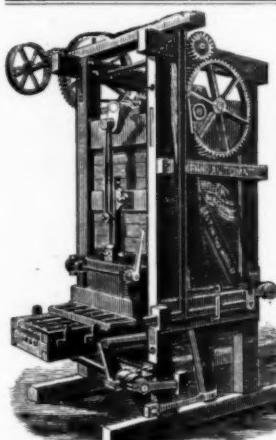
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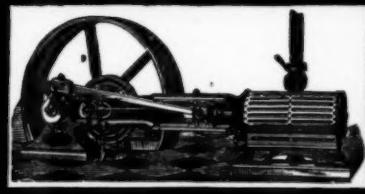
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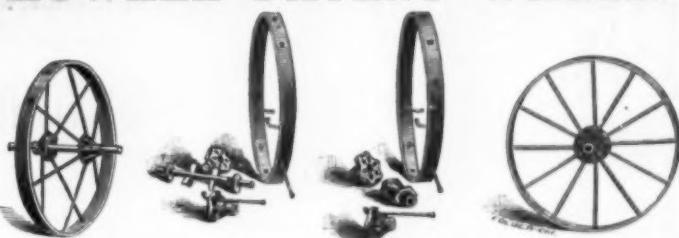
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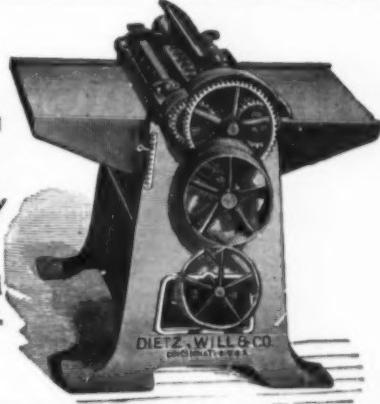
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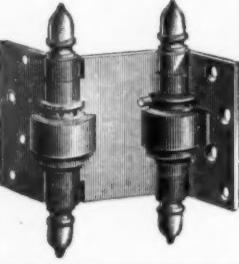
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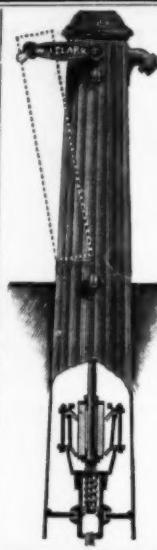
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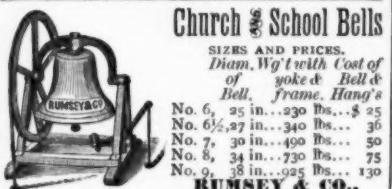
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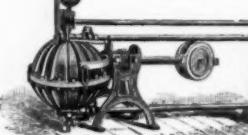
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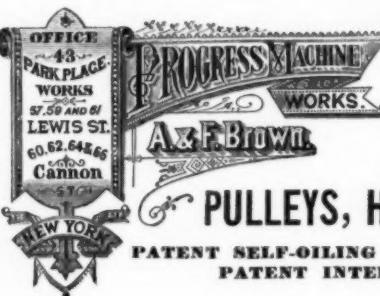


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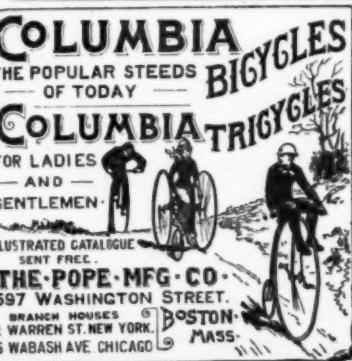
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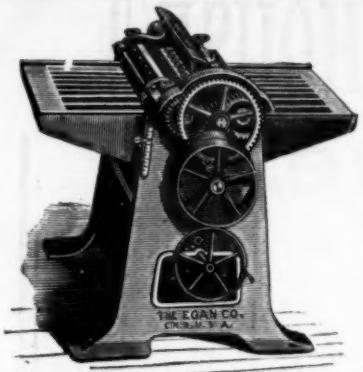


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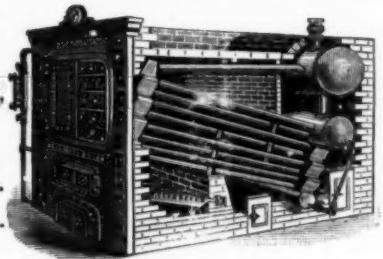
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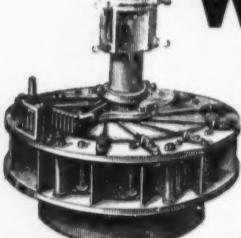
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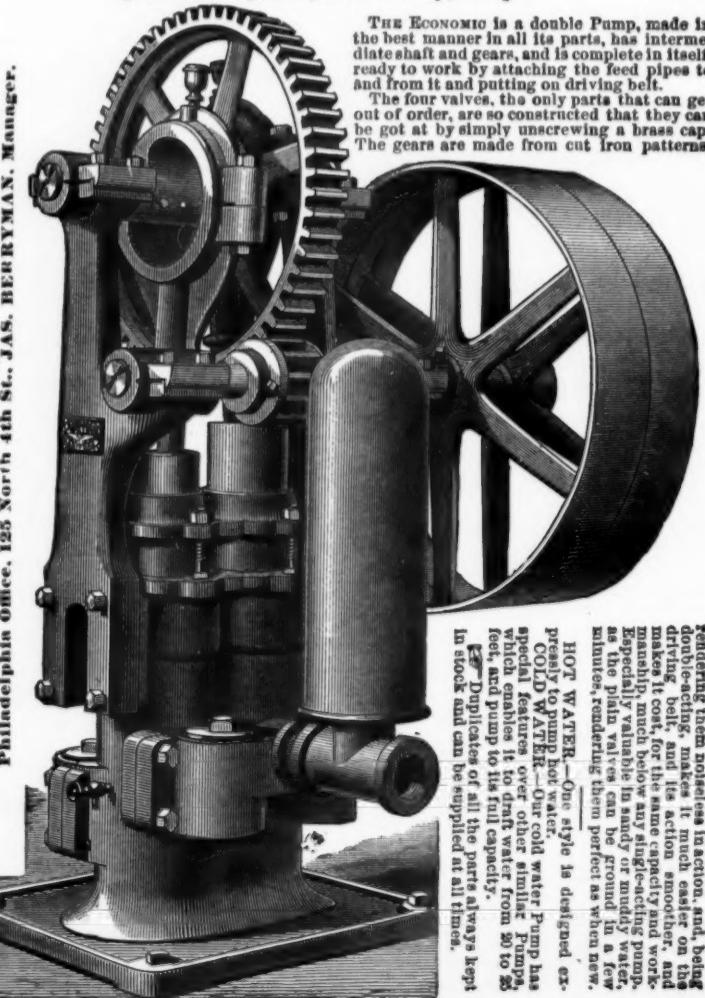
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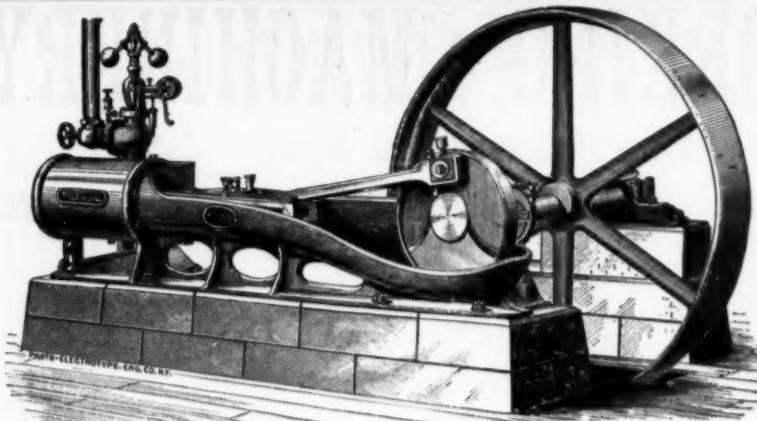
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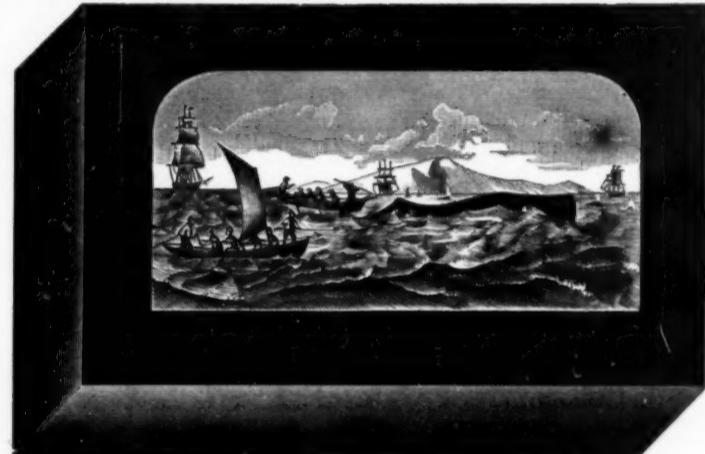
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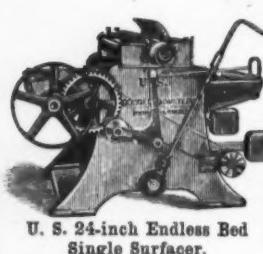
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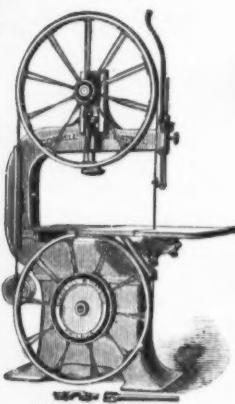


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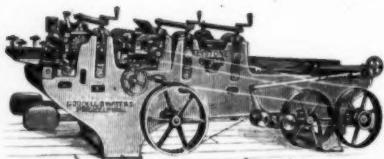
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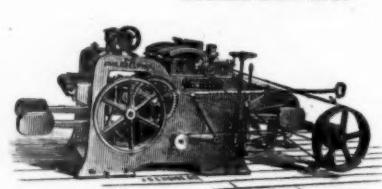
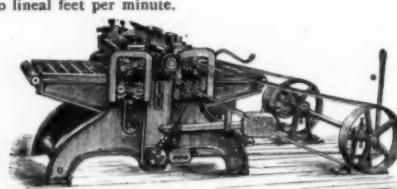
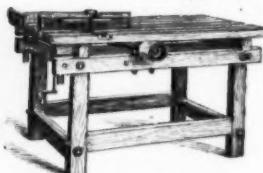
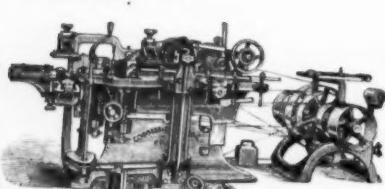
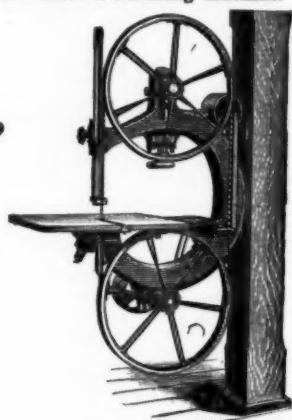
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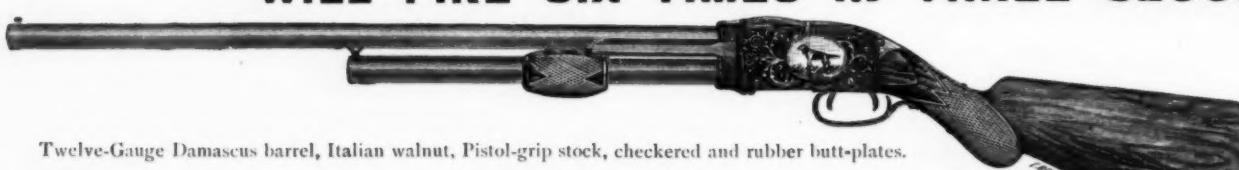
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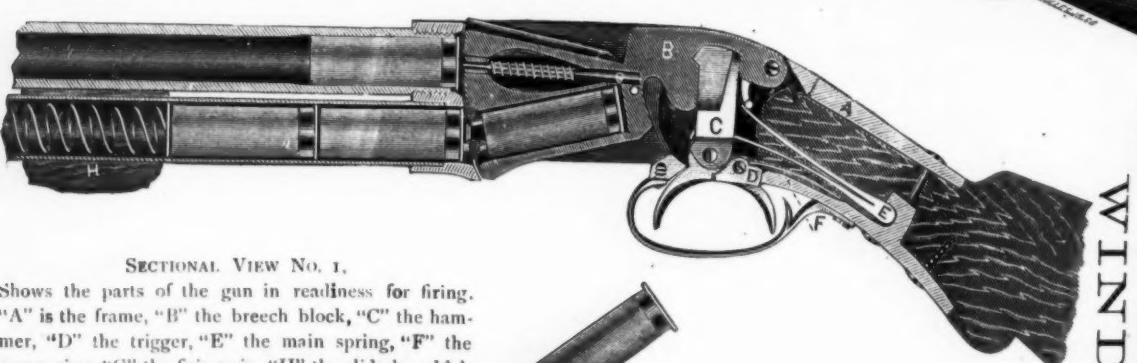
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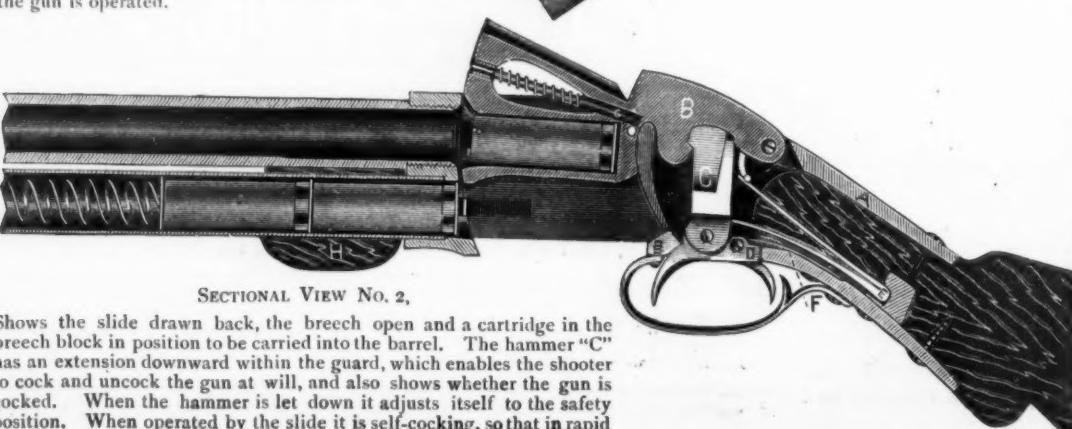


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SECTIONAL VIEW NO. 1.

Shows the parts of the gun in readiness for firing. "A" is the frame, "B" the breech block, "C" the hammer, "D" the trigger, "E" the main spring, "F" the sear spring, "G" the firing pin, "H" the slide by which the gun is operated.



SECTIONAL VIEW NO. 2.

Shows the slide drawn back, the breech open and a cartridge in the breech block in position to be carried into the barrel. The hammer "C" has an extension downward within the guard, which enables the shooter to cock and uncock the gun at will, and also shows whether the gun is cocked. When the hammer is let down it adjusts itself to the safety position. When operated by the slide it is self-cocking, so that in rapid fire the gun need not be taken from the shoulder.

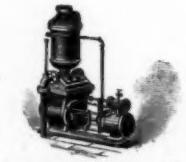
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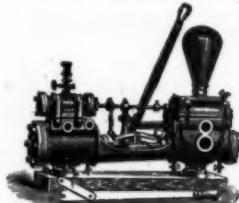
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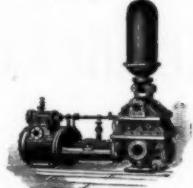
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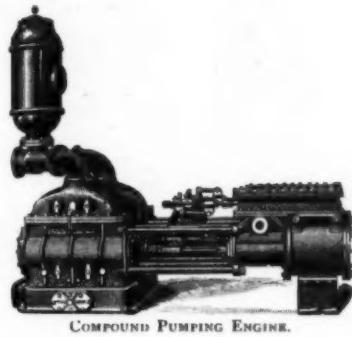


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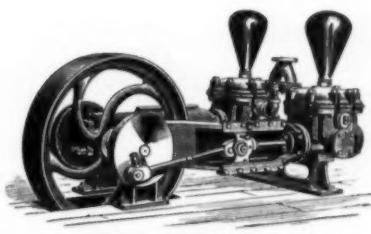


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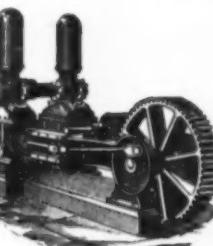


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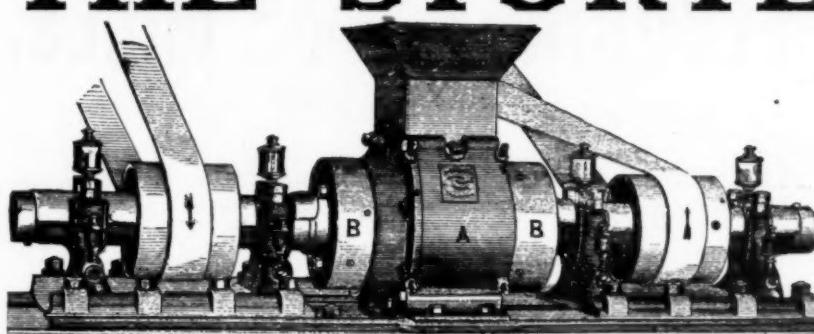
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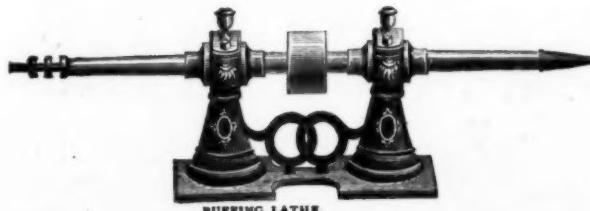
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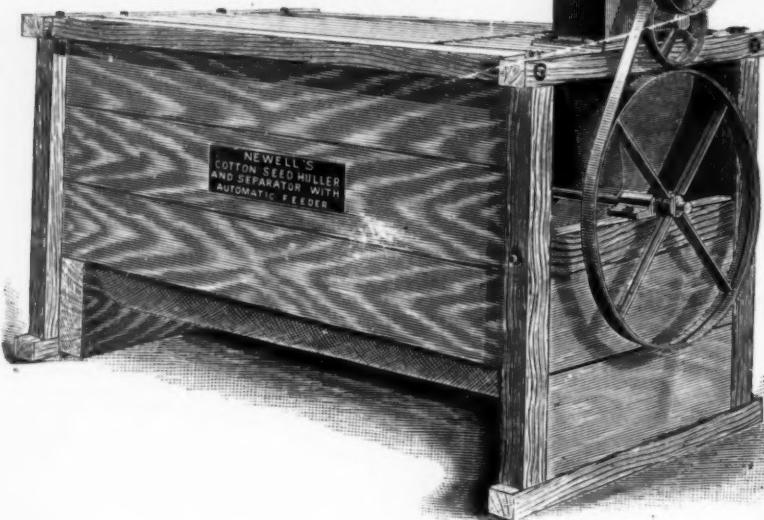
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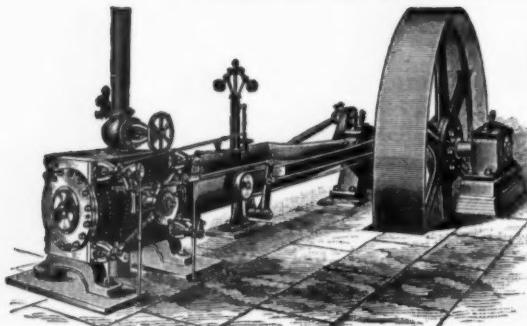
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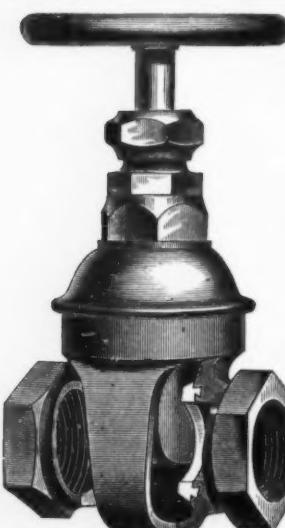
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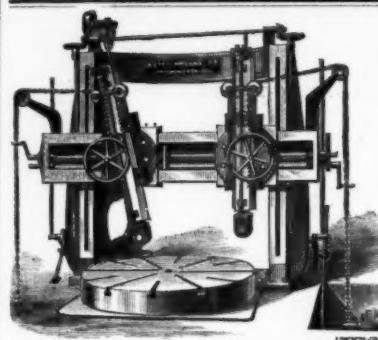
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